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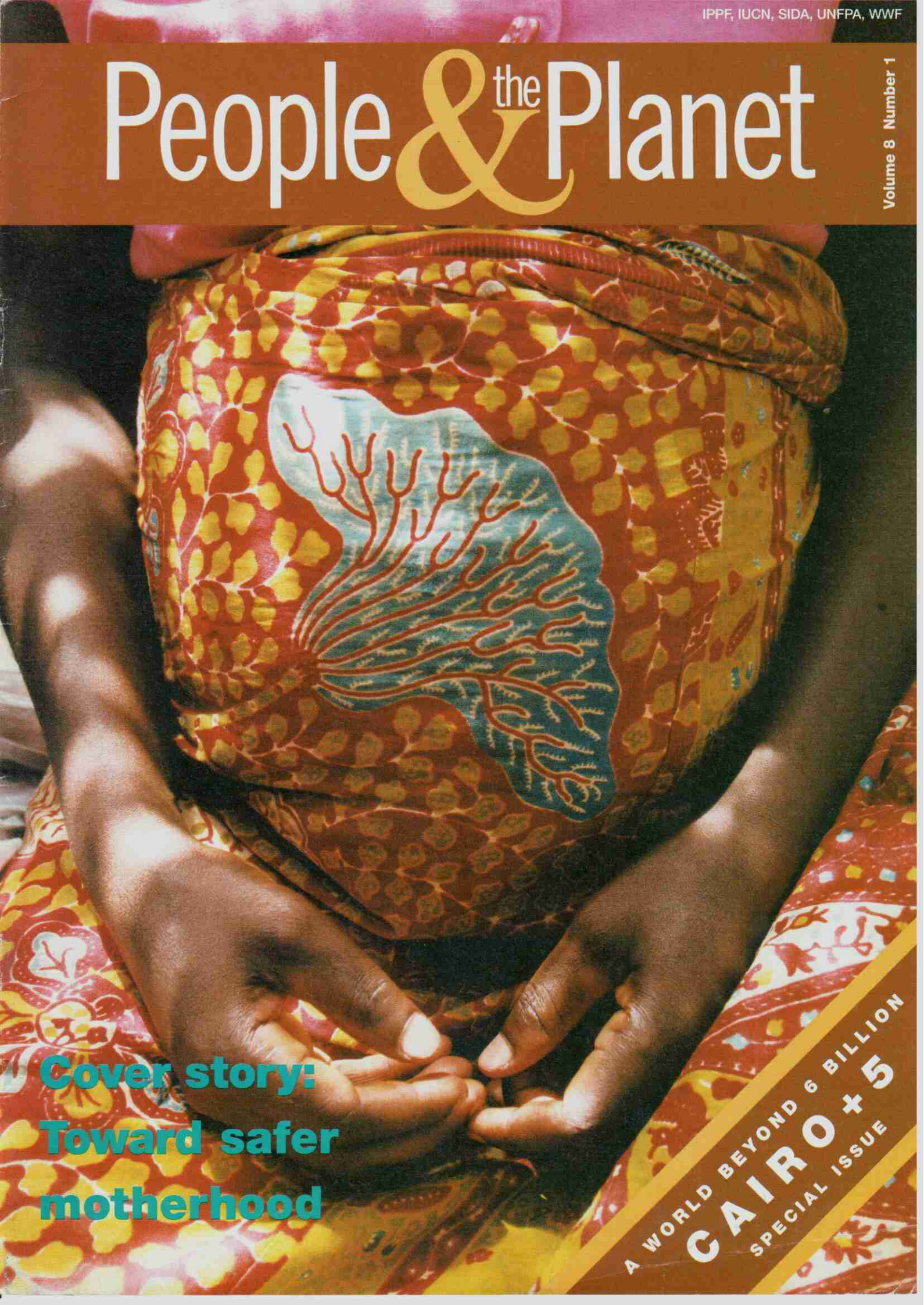
People & the Planet

Volume 8 Number 1

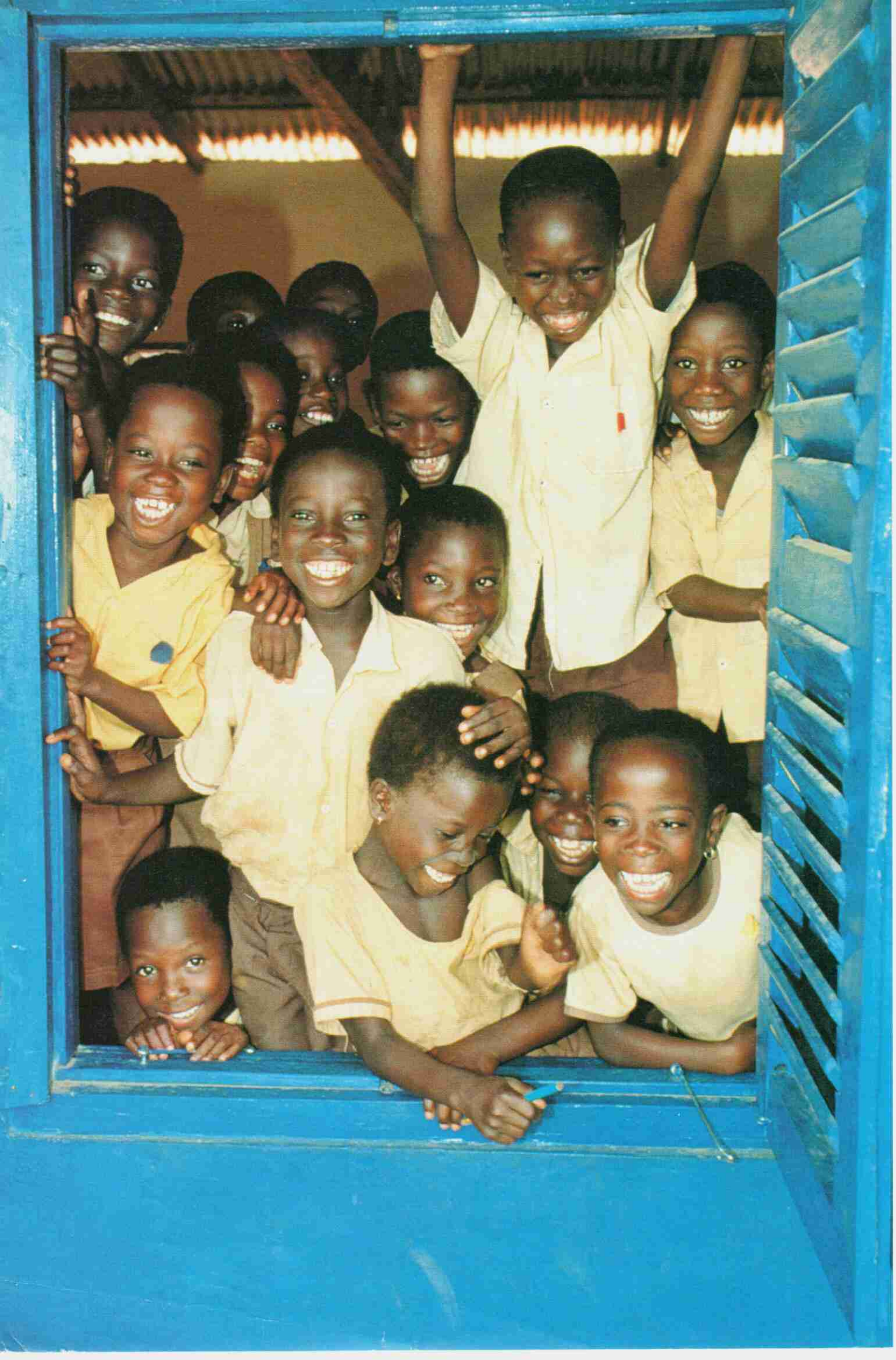


Cover story: Toward safer motherhood

A WORLD BEYOND 6 BILLION

CAIRO + 5

SPECIAL ISSUE



Front cover: Expectant mother, Ghana
Credit: Nancy Durrell McKenna
Left: Africa's next generation of parents
Credit: Ron Giling/Panos Pictures

People & the Planet

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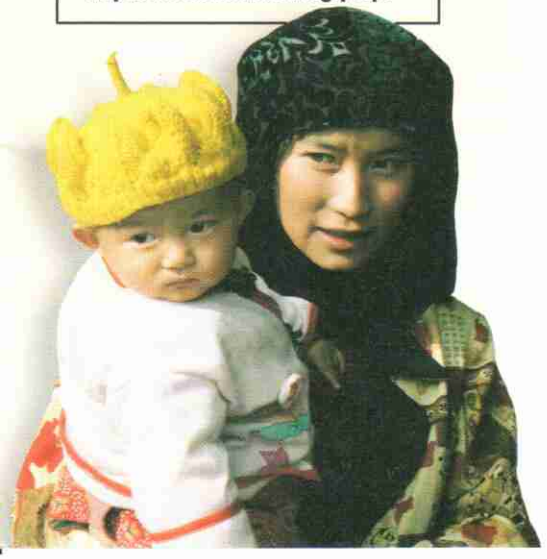

Beyond 6 billion

The five-year review of progress since the 1994 International Conference on Population and Development, about to start in The Hague, is in many respects a make or break affair. Of all the world meetings Cairo stood out as one of the most successful. Its Programme of Action was revolutionary, moving beyond concern with numbers to practical ways of bringing about a rapid improvement in reproductive health. This involved not only better access to family planning and other safe motherhood services, but expanded investment in education and child survival and greater opportunities for women, so that social development and small, healthy families would reinforce each other and lead to a long-term slowing of population growth. This in turn would liberate women's energies, and ease the pressure on the environment, on job creation, and on poor rural and growing urban settlements.

One of the keys to the success of this strategy was a partnership in funding by developing and developed countries. The industrialised countries agreed to find just one-third of the necessary annual investment of US$19 billion by the year 2000. In 1995, their response was encouraging, though not sufficient. In every year since then funding has stalled at around 1995 levels. Next year it looks like being $2 to $4 billion short of the $5.7 billion target. Meanwhile, almost a billion youngsters will be entering upon parenthood in the next decade: all of them in need of the information and means to plan their families and to avoid the perils of early and unwanted pregnancy and sexually transmitted diseases. And this, at a time when AIDS and the economic downturn are taking their toll on social investment.

The cost, in broader population and development terms, will be paid especially in South Asia and in Africa. More generally, all of us will pay in a poorer, overstretched world, depleted of soil, water and other natural resources. The Worldwatch analysis presented here looks gloomy, but no one can doubt that there will be a heavy price to pay if poor countries with mounting problems are not helped to help themselves. There is plenty of evidence in this magazine and elsewhere that the infrastructure for reproductive wellbeing is slowly being put in place in many countries. But the effort to step this up, alongside other social spending, is now a matter of real urgency, as Holland and a few other donor nations have acknowledged. Five years after Cairo, as the world approaches 6 billion and a new millennium, this is the time for action at all levels. As George Benneh points out, small gains now will multiply in the coming century.

John Rowley

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The following 'associates' are partners in the development and distribution of *People & the Planet*: Audubon, AVSC International, Center for Communication Programs – Johns Hopkins School of Public Health, Centre for Development and Population Activities, Conservation International, Earthwatch, Family Health International, Futures Group, International Institute for Environment and Development, International Union for the Scientific Study of Population, Pathfinder International, Population Action International, Population Concern, Population Council, Population Reference Bureau, Royal Swedish Academy of Sciences, Television Trust for the Environment, WWF-Alliance for Religions and Conservation.

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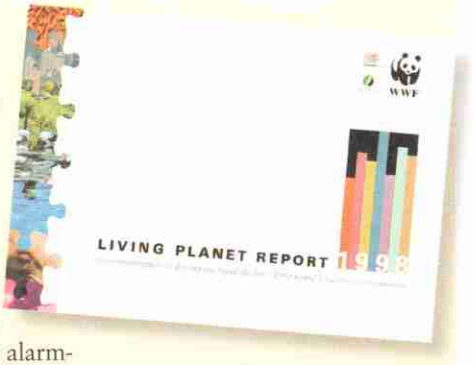
newsfile

WORLD ABUSE



The Earth has lost more than 30 per cent of its natural wealth since 1970, according to a report by the World Wide Fund for Nature, with the burden of loss on forests, freshwater and marine life.

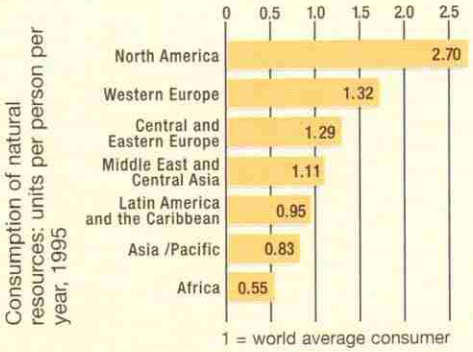
One of the most alarming findings from *The Living Planet Report* is the 50 per cent decline of freshwater resources in the last 25 years, with the rate of decline running at 6 per cent per year, posing a serious threat to wetlands and their habitats. Marine ecosystems have deteriorated by 30 per cent and the world's natural forest cover has declined by about 10 per cent from 1970-1995.

The report also presents new data on consumption pressure and pollution statistics from 152 countries. While western countries have high levels of consumption, some developing countries are depleting their natural resources at an alarming rate. Taiwan, the United States and Singapore are singled out as the main culprits, consuming the earth's resources faster than other countries.

Wood and paper consumption has increased by two-thirds and the report warns that most forests are managed unsustainably. Fish consumption has doubled in the last 25 years and most of the world's fisheries are fully exploited or in decline. In the same period, carbon dioxide emissions have doubled and far exceed the ability of the natural world to absorb them, accelerating global warming.

WWF hopes that the report's 'The Living Planet Index' will become the Dow Jones Index of the global environment. "The Index tries to measure how much nature is left in the world," said Jorgen Randers, Deputy Director-General of WWF. "If it goes down, it means that globally we are over-consuming natural resources and producing too much pollution; if it is stable or goes up, then we are living within our means."

The report produced by WWF in association with the New Economics Foundation and the World Conservation Monitoring Centre, will be published annually.



The complete *Living Planet Report 1998* is available on WWF's website: www.panda.org For more information contact: Alison Lucas on +44 (0)1483 419266, Denise Meredith on +44 (0)181 255 8706, Karen Flanders on (+41 22) 3649 291 or Jonathan Loh on (+41 22) 364 9505.

OZONE FRIENDLY

The World Meterological Organisation (WMO) and the UN Environment Programme (UNEP) have confirmed that the earth is a more ozone-friendly planet today.

The release of an executive summary of the Scientific Assessment of Ozone Depletion 1998 prepared by more than 200 scientists and reviewed by a team of 77 scientists from 27 countries has lauded the effectiveness of the Montreal Protocol on Substances that Deplete the Ozone Layer.

If the protocol were to be fully implemented, a full recovery of the Earth's protective ozone shield could occur by the middle of the next century.

However, 80 per cent of damaging CFC gases are now produced in Russia and other developing countries. And UNEP's Klaus Toepfer warns that "the responsibility for saving the ozone layer is now to a large extent with developing countries. The ozone hole will recover but only if they implement the control measures next year [1999] and complete their phase-out according to schedule."

Meanwhile WMO reports that the surface area of the gap in the ozone layer last year was 15 per cent bigger than ever – exposing an area 2½ times the size of Europe to radiation.

Contact: The Ozone Secretariat in Nairobi. Tel: (+254 2) 62 3885, Fax: (+254 2) 62 3913, Email: sarmam@unep.org, website: www.unep.org/unep/secretar/ozone

IMPACT OF AIDS

At a global level the impact of AIDS is unlikely to suppress population size or growth rates. However, the impact of AIDS may be felt by some individual countries.

For example, the US Bureau of the Census predicts that in some countries populations in 2020 will be considerably smaller as a result of the AIDS pandemic – 45 per cent smaller in Uganda, 35 per cent in Rwanda and 30 per cent in Malawi.

Yet even with this impact, most forecasts project that the populations of nearly all the worst affected African countries (Burkina Faso, Burundi, Central African Republic, Congo, Côte d'Ivoire, Kenya, Malawi, Rwanda, Tanzania, Uganda, Zaire and Zambia) will at least double between 1990 and 2020. Although Zimbabwe has a high prevalence of AIDS, its population is predicted to grow by no less than 50 per cent by 2020.

Hartmut Schwarzbach/Still Pictures

One of the greatest potential tragedies of AIDS will be the reversal in many African countries of hard-won downtrends in infant and child mortality rates. In Zimbabwe, the US Bureau of the Census predicts that AIDS will cause infant mortality rates to more than double and child mortality rates to more than quadruple by 2010. Most forecasts also predict a significant decline in life expectancy as a result of AIDS.

Source: *2020 Vision for Food, Agriculture and the Environment*, published by International Food Policy Research Institute, Washington DC.

RUNAWAY CONSUMPTION

Global consumption of goods and services topped US$24 trillion last year, six times the figure for 1975. People are consuming more in food, energy, education and transportation, communication and entertainment than ever before.

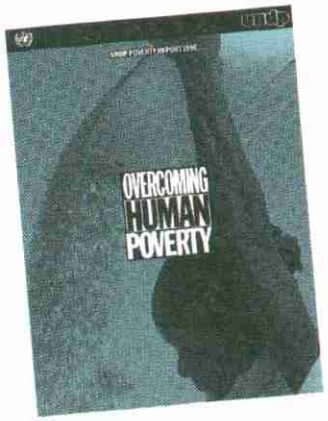
But the human consequences of current consumption patterns are unacceptably high according to the *Human Development Report 1998*, commissioned

by the United Nations Development Programme (UNDP). The report finds that gross inequalities in consumption opportunities have excluded over one billion people who fail to meet even their basic consumption requirements.

And runaway consumption is placing unprecedented pressure on the environment and putting those who consume the least in double jeopardy.

The poorest one-fifth of the world's people who are responsible for just three per cent of carbon emissions, live in low-lying regions that are most vulnerable to the rising sea levels associated with global warming. With a one metre rise in sea level, Bangladesh would lose 17 per cent of its land area. Egypt would lose 12 per cent and seven million Egyptians would lose their homes. Much of the land mass of small island nations, such as the Maldives and Tuvalu, would also disappear beneath the waves.

The global marine fish catch has quadrupled since 1950 and the consumption of fresh water has almost doubled since 1960. Wood consumption for industrial and domestic fuel is



40 per cent higher than it was 25 years ago. But here again, the report observes, poor people benefit least and suffer the most painful consequences of unsustainable consumption habits.

"Consumers, civil society and governments must forge alliances for new patterns of consumption," says Richard Jolly, the principal co-ordinator of the report.

The report sets five goals:

- Raising the consumption levels of more than one billion people who have been left out of the consumption explosion.
- Moving to more sustainable consumption patterns that reduce environmental damage, improve efficiency in resource use and regenerate renewable resources including fresh water supplies, soils, fish stocks and forests.
- Protecting and promoting the rights of consumers to information, product safety and access to the goods they need.
- Discouraging the patterns of consumption that have a negative impact on society and that reinforce inequalities and poverty.
- Achieving more equitable burden-sharing among nations to reduce and prevent damage to the environment and reduce poverty itself.

Developing countries face a strategic choice, the report states. They can repeat the industrialisation and growth processes of the first half of the century, repeating inequitable patterns that create a legacy of pollution. Or they can leapfrog to growth patterns that are pro-environment, and pro-poor, by expanding people's access to basic social services.

The Human Development Report is published in English by Oxford University Press, 2001 Evans Road, Cary, NC 27513, USA. Tel: (+1 919) 677 0977, toll-free in the USA: (800) 451 7556, Fax: (+ 919) 677 1303. Paperback price US$19.95

CHANGE IN WEATHER

Latest information on conditions in the equatorial Pacific Ocean shows evidence that El Niño, the weather phenomenon of 1997/98, has passed its peak and that La Niña – El Niño's mirror image – may follow more swiftly than usual as a result of global warming.

The El Niño 1997/98 event bought severe change in weather patterns and, according to the World Health Organisation, around 120,000 cases of cholera can be attributed to the heavy rains linked to El Niño during 1997.

In addition, Eastern Cuba faced drought in 1998, disrupting the production of essential staple crops such sugar cane, root vegetables, beans, bananas and rice, as well as livestock, poultry and diary production.

La Niña is the opposite phase of the phenomenon with warm temperatures in the equatorial Pacific replaced by cool, and the nature of the climate disruption elsewhere in the tropics and sub-tropics reversed.

Usually, there is some respite between the two phases but there are indications that La Niña may, this time round follow hard on the heels of the record-breaking El Niño event. Lars Olsson of the World Climate Programme warns that "La Niña is developing rapidly. This one seems more intensive than what we have seen before."

La Niña brings wet weather and flooding to Southeast Asia and parts of Australia, drought to the US west coast and South America and can lead to an increase in tropical storms in some areas.

The swift arrival of La Niña could compound existing problems. "After severe droughts top soil is very fragile and if you get heavy rain on the top soil, then you could get heavy erosion," Ollson points out. La Niña may, however, bring an end to widespread forest fires and smog in Southeast Asia.

Source: UNEP and *Tiempo* (published by the International Institute for Environment and Development, London, and the University of East Anglia, Norwich, UK).

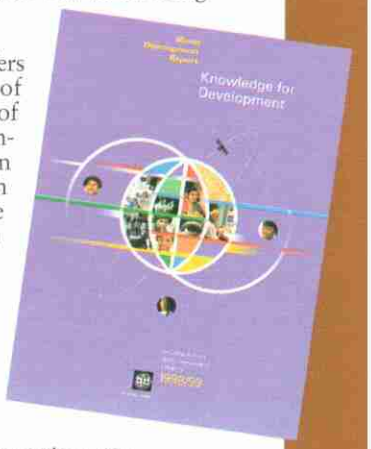
KNOWLEDGE FOR ALL

The latest *World Development Report* proposes that we look at the problems of development in a new way – from the perspective of knowledge.

"New communications technologies and plummeting computing costs are shrinking distance and eroding borders and time," writes World Bank President, James D. Wolfensohn in his Foreword to the Report. But he adds that, because of globalisation and intensifying competition, "for the poor, the promise of the new information age – knowledge for all – can seem as remote as a distant star."

The Report says that low national incomes are not the only reason why poor countries are less prosperous than richer ones. Many developing countries lack the capability to acquire and adapt the economic, technical and social knowledge that has spurred many of the world's development success stories.

It recommends that developing countries should adopt policies to narrow the knowledge gaps that separate them from rich countries, by investing in education and technical training, maintaining an open trading regime, and removing barriers to competition in the telecommunications sector, as well as building on indigenous knowledge



The Report offers many examples of the effective use of knowledge. Information on sanitation and preventive health has improved life expectancy in Costa Rica, and in many countries improving women's education has reduced fertility and infant mortality. A whole chapter is devoted to explaining the benefits of increasing our knowledge of the environment, from understanding global warming to pest control in Indonesia.

Among the examples of knowledge sharing mentioned in the Report are the African Virtual University, launched in 1995 to provide affordable short courses via satellite receiver terminals so far installed in 27 speaking countries; and One World Online, the electronic gateway on sustainable development issues linking the websites of over 250 partner organisations, including *People & the Planet*.

World Development Report 1998, $25.95, is available from The World Bank, 1818 H Street NW, Washington DC 20433, USA. Fax: +1 202 477 6391. Email: books@worldbank.org

Mark Edwards/Still Pictures

ONE BILLION INDIANS

India's population will reach one billion by May 2000, according to the Census Department projections. By the time the country's 14th population census is completed in the year 2001 the figure will be 1.1 billion, the *Hindustan Times* newspaper said.

The census is conducted every ten years in India and according to the Census Department, India is the only country in the world that has had an uninterrupted series of censuses.

Can the world sustain a population of 8-12 billion in the coming century? Maybe, says **Carl Haub**, but there is no certainty that population growth can be kept within these bounds.

6 billion - and c

Without question, one of the next century's vital issues is that of population growth. It will see the playing out of humanity's great expansion which in this century has witnessed the most far-reaching demographic change in the history of human species.

In 1900, a relatively scant 1.5 billion people inhabited the Earth, only one billion of those in the developing countries of Asia, Africa and Latin America. As 1999 begins, we fast approach six billion and the population of the developing countries itself is nearing the five billion threshold.

Just as the population explosion of the 20th century was a result of the mortality revolution, the final resolution of that growth must come from a fertility revolution. The first took place with unprecedented speed and so must the second. Why is this so?

Simply put, life expectancy, which took centuries to rise in the industrialised countries, did so much more swiftly in the developing countries. So swiftly, that their social preference for larger families did not have time to change. Mortality decline in the developed countries took place during a progressive shift from predominately rural societies to urban ones. But, in many of today's developing countries, rapid declines in death rates were not at first accompanied by declines in birth rates. As a result, population growth took off at a pace never before seen.

The story may be familiar, but it is worth emphasising – what happened in the developing countries in this century did not simply repeat what had happened in Europe and North America. It happened much more quickly. That, of course, is why we have six billion at century's end, up from less than two in 1900.

Rising life expectancy and falling infant mortality produced growth rates that could climb to three per cent or higher when combined with historically high birth rates. This is the situation many developing countries found themselves in during the early post-war years. If the situation persisted, countries could easily find their numbers doubling every 20 years. Nearly vertical growth curves were quite possible.

There is, of course, only one desirable way to slow such growth: through a decline in the birth rate. But many developing countries faced a truly difficult situation – not only would birth rates have to be reduced when the socio-economic situation was unfavourable, they would have to do so much more quickly than the wealthy countries ever did.

Thirty years ago, it was difficult to foresee what might take place. Not only was rapid population growth a new phenomenon, effective means of contraception were only just becoming available.

But over the course of the past 30 years, birth rates have come down. Few, however, have declined to the precise level needed to actually bring growth to zero, about two children per woman, or "replacement level" fertility.

Fertility decline is, in fact, the foundation of all projections that we so often cite. That is something most users know, but the importance of the nature of that decline is not as obvious, or as well understood as it should be.

Is a sustainable population possible? There have, of course, been many estimates and definitions of a sustainable global population. But for argument's

Below: Children beneath a painted 'Control the Population slogan, China

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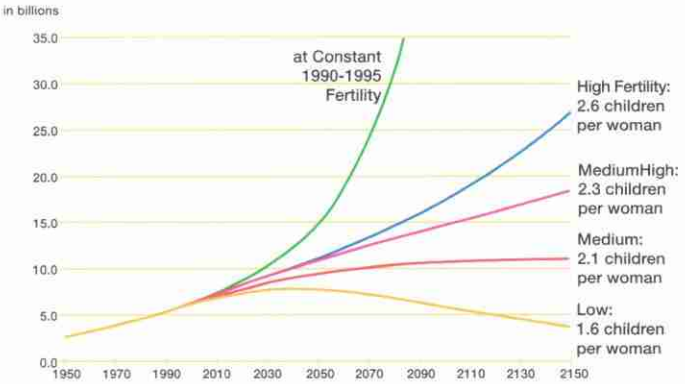


Graph showing alternative global popuation projections

sake let's take the median of the low and high estimates cited by Joel Cohen in his survey of the subject, *How Many People Can the Earth Support*[1]. These range from 7.7 to 12 billion.

On this basis one can only conclude that sustainability remains in jeopardy.

Global picture

In order to understand how that can be, we must take a close look at global population projections and how they should be interpreted. Projections are often used to make a writer's point, without full understanding of what they actually mean. Unquestionably, the United Nations comprehensive series of world population projections are the most widely referenced. For that reason, we will take a closer look at these.

The United Nations Population Division publishes its projections every two years[2]. The very fact that it publishes a broad spectrum of possibilities should tell the user something. If future world population size could truly be known, only one would be required. The five main series of projections vary considerably. In the long term (to 2150), they project an astounding range of possibility – from under 4 billion population to 27 billion. Why such a great variation?

Most users have a strong tendency to approach projections backwards. The question typically asked is: what size population has the UN projected for 2050? for 2150? Is it more or less than their previous efforts? But those are not the questions we should be asking. When using projections, our first inquiry should be: what did the UN assume in making each projection? Why do they differ?

The answer is simple. The projections diverge for just one reason: fertility. At the global level, this is the only source of variation. Since the range of the results falls well outside the bounds of the population size we have proposed as "sustainable" for the purposes of this article, we are duty bound to pay strict attention to the assumptions the UN makes regarding fertility.

Since the UN publishes five projections, an odd number, there is necessarily a "middle" series. Often, that makes the task of citing the results far too easy for the user. Just use the middle series. The other four series are simply regarded as outliers, or even wild improbabilities, and are rarely considered.

The UN middle series projection (see table on page 9) assumes that all world regions will converge on the same fertility level, a total fertility rate (TFR) of 2.1 children per woman by 2050-55. This very fact alone should signal that projections often contain highly stylised assumptions, used more for purposes of illustration than for prediction. In the case of the middle series, the illustrative future fertility level is, of course, exact replacement level fertility. Each couple simply replaces itself, two for two.

This assumption has the added advantage of resulting in an eventual stationary population size, one that is neither increasing nor decreasing at some point in the distant future. Should that assumption be exactly borne out by events, world population will rise to 9.4 billion by 2050 and ultimately stabilise at about 11 billion.

Recognising the rather pat assumptions of the middle series, we are led to investigate the UN's other variants,

Gangfeng Wang/Panos Pictures

Shehzad Noorani/Still Pictures

ranging from the high to the low. The UN itself puts it this way: "The range of potential demographic outcomes underscores the difficulty in focusing on any particular scenario and also highlights the critical importance of current policies and actions for the long-range future of world population". In other words, seemingly small differences in what one assumes in a projection will make very large differences in the results.

Falling fertility

What, for example, would be the result if fertility did fall in all world regions along the general lines of the medium series, but did not come exactly to 2.1, but, say, to 10 per cent above or below that value? Then, we would have a population of 18.3 billion if the global TFR were 2.3 or only 6.4 billion with a TFR of 1.9. These two projections alone show how very sensitive future world population size is to small adjustments in assumed fertility. Here, the projections are telling us that, if we postulated a future world TFR of 2.1 and were only "wrong" by 10 per cent, we would have a range in world population of about 12 billion from the high to low.

What if the ultimate TFR varies even more from 2.1 than that? The answer to this question is contained in the UN's High and Low projections. These two assume a difference of half a child from 2.1, so that the High projection assumes a future world TFR of 2.6 and the Low, 1.6. Then, future world population size in 2150 varies from about 27 billion (and still growing) down to 3.6 billion (and declining).

Such a wide variety of possibilities often presents too confusing an array of potential futures. But that is the central point of this article. The future course of the birth rate will play a final, unknown role in determining an ultimate size of world population or its tendency to grow continuously or to enter a period of decline.

The good news is that birth rates are expected to decline in developing countries and they already have in many, to a greater or lesser degree. The rationale for this expectation is somewhat vague, but generally is based upon the fact that birth rates have historically declined as economies develop and as family planning becomes more widely available. But it should be obvious that the expectation of decline itself is not the point. The real questions are: when? how fast? to what level? Population giant India, soon due to become the world's second "population billionaire" offers an eloquent example of just how important future fertility trends are.

Indian choices

The UN medium projection assumes that India will achieve replacement level fertility in 2010. This results in a population size for India of 1.5 billion in 2050 and, ultimately 1.7 billion. In short, India will add a number equal to its entire population in 1980. In comparison, the US Census Bureau's single projection assumes replacement fertility would be reached in 2035. That results in a population of 1.7 billion in 2050 (as far as the Bureau's projections go) and, a likely size closer to two billion later on. But, both of those projections cited assume that replacement fertility will, in fact, be reached. What if Indian couples prefer something more than 2.1 children, as has already happened elsewhere? What if they prefer one-half child more? Will that make a difference worth bothering about? The UN high projection provides the answer.

If Indian couples decide on 2.6 children on average, then India's population will rise and pass 4.7 billion, the population of the entire Earth in 1983. Here we can see why one should never accept the results of any single projection as a given. The simple mathematics of population dynamics is quite unforgiving when it comes to small differences in projection assumptions.

Do past trends offer any clue as to what we might expect? Here, we see that different countries provide, in fact, different clues. Among the developing countries, we have seen uninterrupted decline to TFRs of two children per woman or less (Cuba, South Korea, Thailand, Taiwan). We have seen TFR declines that greatly slow or stall above

two children per woman (Argentina, Costa Rica, Jamaica, Colombia). And, finally, we have seen countries with little or no decline (Madagascar, Nigeria, Iraq, Pakistan).

In Europe, fertility declines have fallen to historically low levels to the point where women now average but 1.5 children each and population decline has become a reality. Can we expect developing countries to emulate the European experience? The United States has not, holding firm at two children per woman. Can we seriously expect Niger to emulate Germany's very low fertility given the vast social, cultural and economic differences between those two countries? Perhaps that may happen in the distant future, but medium fertility projections assume that replacement level fertility will be achieved in Africa only 40 years from now.

The fact that these questions cannot now be answered does not obviate their importance. It is on these questions that the final outcome of humankind's sudden numerical outburst depends. For now, we can only observe the progress that has been made, monitor current trends and carefully assess what all variants of population projections are telling us so that we can at least prepare. Sustainable population? Demography tells us that it is in our grasp, but can so easily slip away. ■

● Last October, the UN issued its latest biennial projections, showing a medium projection of world population in 2050 about five per cent smaller than the 1996 long-range projections cited here. Sadly, most of this difference was due to increased levels of AIDS in Africa - not fertility.

Carl Haub is Senior Demographer at the Washington-based Population Reference Bureau.

[1] Cohen, Joel. *How Many People Can the Earth Support?*, New York, W. W. Norton and Company, 1995.

[2] United Nations Population division. *World Population Prospects: The 1996 Revision*, United Nations, New York, 1998. The UN also publishes long-range projections on a periodic basis. Those cited here are from the same source, *World Population Projections to 2150*.

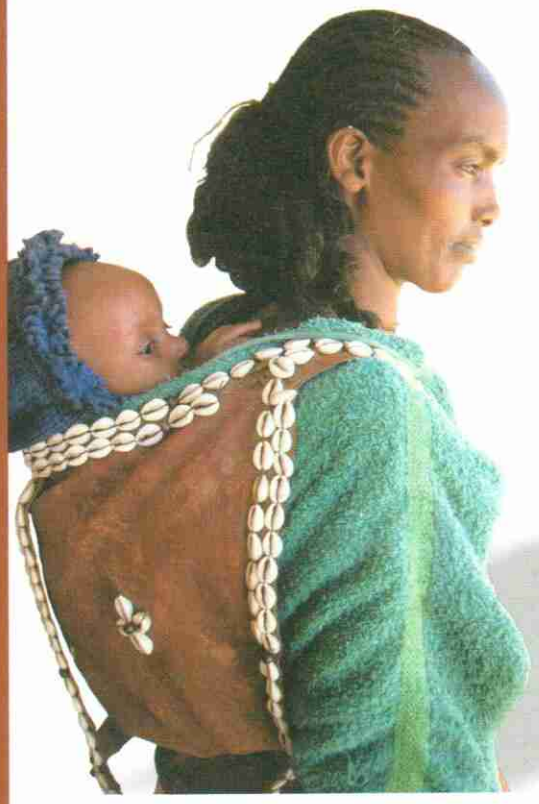
Left: Crowded street in Dhaka, Bangladesh – a country where fertility has fallen fast
Below: Newborn babies in Georgia

World Population Projected to 2150 and Underlying Fertility Assumptions, United Nations 1996 Projections

	2150 Population (in billions)	Assumed Total Fertility Rate in 2050-2055
Low	3.6	1.6
Medium-Low	6.4	1.9
Middle	10.8	2.1
Medium-High	18.3	2.3
High	27.0	2.6

Source: United Nations Population Division, *World Population Projections to 2150*. United Nations, New York, 1998.

Jorgen Schytte/Still Pictures



Jenny Matthews/Network

Rising numbers

What will be the social and environmental consequences of adding another three billion or more people to the world's population? **Lester Brown**, **Gary Gardner** and **Brian Halweil** of the Worldwatch Institute provide a sobering analysis.

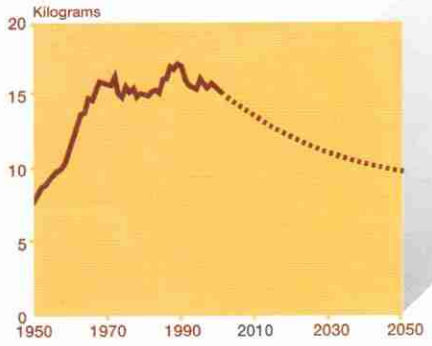
One way to understand the consequences of future population growth is to contrast some of the key trends projected for the next half-century with those of the last one.

For example, we have seen a near five-fold growth in the oceanic fish catch and a doubling in the supply available per person, but marine biologists now believe we may have "hit the wall" in oceanic fisheries and the oceans cannot sustain a catch any larger than today's. Thus people born today are likely to see the catch per person cut in half during their lifetime.

Grainland per person has been shrinking since mid-century, but the drop projected for the next 50 years means the world will have less grainland per person than India has today. Future population growth is likely to reduce this key number in many societies to the point where they will no longer be able to feed themselves.

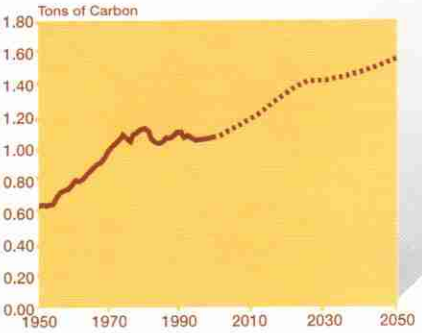
Countries such as Ethiopia, India, Iran, Nigeria and Pakistan will see grainland per person shrink by 2050 to less than one tenth of a hectare (one fourth of an acre) – smaller than a typical suburban housing lot in the United States.

World fish catch per person, 1950-96, with projections to 2050



The amount of fresh water per person has also shrunk steadily as a result of population growth. Countries experiencing shortages include China and India, along with many smaller ones. And as irrigation water is diverted to industrial and residential uses, the resultant water shortages could reduce food production per person in many countries below the survival level.

The challenge to governments presented by continuing rapid population growth is not limited to natural resources. It also includes education, housing and jobs. During the last half-century, the world has fallen further and further behind in creating jobs, leading to record levels of unemployment and under-employment (see box).



Global carbon emissions per person, 1950-95, with projections to 2050

Fortunately, some 32 industrialised countries are stabilising their populations, and another 39 are on their way to doing so (including China and the United States). But many others still face a doubling or tripling of their numbers and, confronted with mounting health and environmental problems, are in danger of falling back into the first stage of the demographic transition, with high death rates matched by high birth rates.

Three of the more populous ones stand out: Ethiopia, Nigeria and Pakistan. With fertility rates ranging from just under six children per woman in Pakistan, and to nearly seven in Ethiopia, water availability per person is shrinking fast. By 2050 it will be well below the minimum needed to satisfy basic food and residential needs.

In addition there are many less populous countries that are facing potentially overwhelming population growth. Among them are Congo-Kinshasa (Zaire), projected to go from 49 million today to 165 million in 2050; Yemen jumping from 17 to 89 million; and Tanzania going from 32 to 89 million

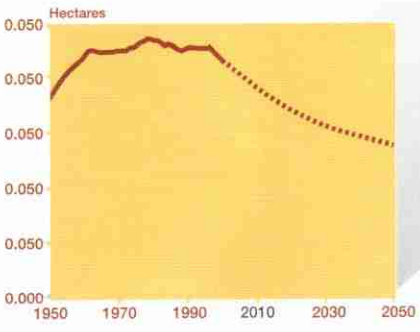
Among other countries which face the risk of falling back, rather than going forward to replacement level fertility with low death and birth rates, are Afghanistan, Egypt, Ghana, Haiti, Honduras, India, Myanmar (Burma), the Sudan and Tanzania.

Overwhelmed by the problems of finding school places and jobs for swelling numbers of young people, dealing with environmental problems associated with rapid population growth, such as deforestation, increased flooding and soil erosion, and aquifer depletion, they are often unable to respond effectively to emerging threats such as new diseases, and food and water shortages.

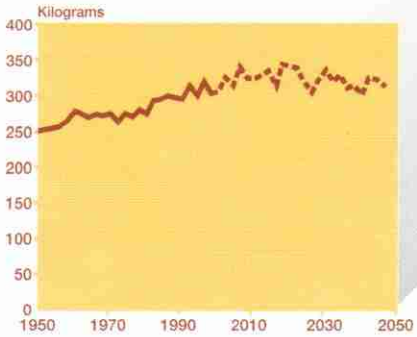
For several African countries with high HIV infection levels, this is no longer a hypothetical prospect. In Zimbabwe, for example, more than 1.4 million of its 11 million people are infected with HIV. As a result, it is expected to reach population stability by the year 2002 as death rates climb to meet birth rates. This would be a tragic new development in world demography.

Other African countries that might also reach zero population growth as rising death rates offset high fertility are Botswana, Namibia, Zambia and Swaziland. In each of these, HIV is infecting a fifth of the population. In

Global irrigated area per person, 1950-96, with projections to 2050



s cast a long shadow



World grain production per person with projections to 2050

the absence of a concerted effort to contain the spread of the virus several other African countries could see their population growth slowed to a halt.

No one knows how these and other pressures on food and water resources will affect societies, or lead to conflict. Competition for the waters of the Nile as the population of Egypt, the Sudan and Ethiopia grows from 157 million to 388 million is just one possible source of dispute.

Shehzao Noorani/Still Pictures

The challenge for world leaders now is to help countries maximise their prospects for moving into the final stage of the transition to small healthy families and to stabilise world population below 8 billion.

This will require a worldwide effort to do four things: undertake national carrying capacity assessments, fill the family planning gap, educate young women and adopt a worldwide campaign to stop at two surviving children. ■

Lester Brown, Gary Gardner and Brian Halweil are authors of the Worldwatch Paper 143: *Beyond Malthus: Sixteen Dimensions of the Population Problem*, from which this article is drawn.

Top: Mother and child, Eritrea
Above: Water will become a possible source of conflict in the next century

THE COMING JOB SURGE

Over the next 15 years, some 45 million net additions are expected in the global labour force each year and, given the young age structures of their populations, the major additions to the work force will largely be in developing countries, *writes Azfar Khan*.

What this means is that over this period of 15 years, 675 million additional jobs will need to be created – about the same as the total number of jobs that existed in the world in 1950 and more than the entire labour force of the industrialised countries in 1990.

Already, lack of sufficient productive employment means that vast numbers are without the means to earn a living and sustain their livelihoods.

As a result, about 40 per cent of the population of the developing world lives in absolute poverty. They have responded by taking on the most rudimentary form of employment, typically in the informal sector, to ensure a basic subsistence. In many cases, poverty has put pressure on parents to send children out to work at a young age.

The creation of jobs depends upon growth and investment which is employment-friendly. Global trends though, appear to be going in the opposite direction. The UNDP's *Human Development Report* of 1993 observed that, between 1960 and 1987, only a third of the increase in output in the developing countries could be attributed to increase in labour inputs. More than two-thirds of the increase was because of increased capital investments.

In the wake of these developments, the International Labour Office (ILO) for one, has pushed for measures in developing countries – particularly Africa – which have a relatively high labour intensity. These measures, associated with the 'Jobs for Africa' initiative are essentially linked to large scale public sector works programmes, with the hope that as economies improve their infrastructures they would provide a basis for greater employment in the future. The scope of these efforts, is as yet, fairly small.

In the light of this, it seems clear that population growth should be at the top of the agenda of developing country governments. The argument is fairly straightforward: though the additions to the labour force till 2010 have already been born, in the long run reducing rapid population growth can ease the problems of providing social welfare, of coping with rapid urbanisation, generating productive employment for all and alleviating poverty.

However, while population variables may influence socio-economic developments, they are themselves influenced by social, economic and political change. Research has strongly suggested that an augmentation in the social and material well-being of individuals and their households improves their receptivity to modern ideas and influences decision making – for example concerning fertility – in a positive manner.

This requires an integrated approach and a coming together of various development efforts.

Azfar F. Khan is a Technical Support Services Specialist in Population and Poverty in the Development Policies Department of the International Labour Office.

Ron Giling/Still Pictures

What hope for a

Never before have so many nations tried to modernise in the face of such extraordinary population growth as is now occurring in Africa. Here, **Professor George Benneh** assesses the scale of the challenge.

African countries face many challenges in their relentless efforts to improve the quality of life of their people. The continent will enter the new millennium with 40 per cent of its population among the world's poor, subsisting on less than US$1 a day and with a declining per capita food production, an increasing public health crisis, a mounting external debt, a dwindling share of African exports in world trade, a degrading environment and an increasing incidence of political instability and internal strife. Indeed, Africa is increasingly being marginalised in the global economy.

This overall gloomy picture masks positive trends in a number of African countries, which give cause for optimism. Across the continent, policy reforms are contributing to dynamic economic growth. Authoritarian systems of government have been replaced by democratic systems. Greater political openness is strengthening the commitment of African governments to meeting the basic needs of their people. But the sustainable development of the continent will constitute one of the major global challenges in the new millennium.

Perhaps, the continent's development would have been easier if African governments did not have to contend with a rapidly growing population. Never before have so many nations tried to modernise in the face of such extraordinary population growth. With an annual population growth rate around 3 per cent, Africa is the fastest growing region in the world.

Demographic transition

Nearly half of African countries recorded population growth rates of 3 per cent or more between 1988 and 1995. This means that their population would double in about 23 years. The Republic of Togo and Libya for example, are projected to double their population within a period of 19 years, growing at an annual rate of 3.6 per cent and 3.7 per cent respectively.

The rate of population growth is high because the total fertility rate – the average number of births per woman – remains exceptionally high, about six. On the other hand, improved health care and health delivery systems in African countries have led to a steady decline in the crude death rate.

In Ghana, crude death rate has declined from 22 per 1,000 in 1955 to 14 per 1,000 in 1990. Life expectancy at birth in Ghana has increased from 45 years in 1960 to 54 years for males and 57 years for females (1993 DHS). Population will continue to grow as long as there is no decline in fertility while the death rate continues to decline.

If the next stage of the demographic transition, characterised by low fertility and low death rates, is unduly delayed, it will have serious consequences for the continent's development.

Already, the demands of escalating human numbers are exceeding the sustainable yield of life support systems. In one country after another, the pressure on croplands, forests, grasslands and water is excessive as shown by dwin-

a second Africa?

dling forests, eroding soils, desertification and falling water tables. The rate of deforestation varies from country to country. In Côte d'Ivoire, for example, it was estimated that during the period 1981-85 about 290,000 hectares of the closed forest were being cleared annually.

As much as half of sub-Saharan African farmland is affected by soil degradation and erosion and up to 80 per cent of pasture and range areas show signs of degradation[1]. Such estimates may be on the high side but they convey a notion of the scale of the problem until more reliable data are assembled. Deforestation and soil erosion are undermining the very natural resource base on which African farmers and their families depend for survival.

As a result of the high rates of population growth, the population of most African countries is characterised by a youthful age structure. According to UN estimates at least 45 per cent of the population is under the age of 15 in most African countries. Only in Gabon and South Africa is the percentage under age 15 less than 40.

In Ghana, typical of the region, an estimated 47 per cent of its population is younger than 15. This contrasts with 21 per cent of the United States population. This implies that African population has a built-in momentum, which will result in increased rate of population growth for some decades to come. Millions of Africans aged below 15 years will become tomorrow's workers and parents. They will add to the African population, however successful current efforts are in reducing total fertility in African countries, from the average of six to replacement level of two.

The youthful age structure makes the dependency burden in African countries high. While one working adult supports, on average, one person in Ghana, in a developed country such as Switzerland, two working adults support a child. Furthermore, an exceptionally large share of development resources goes to support the health, education and the wellbeing of children who are largely consumers and who hardly contribute anything to the economic growth of their countries.

Education for example, accounts for 20 to 25 per cent of government expenditure in many African countries. The percentage in Ghana is more than 30. In spite of the commitment of African governments to make basic education free and compulsory, the goal will become more illusive as the number of primary school-aged children escalates in the face of dwindling resources.

There is a real danger that some African countries, whose populations will double in the next few decades, may face falling living standards and scarcity of natural resources such as arable land, forests and water. This could drive them back into stage one of the demographic transition, marked by high fertility and death rates, a process referred to by demographers as demographic entrapment.

Emerging threat

African countries also have to cope with the threat of AIDS. The impact of AIDS on the continent's population and development has not been fully assessed but the epidemic poses one of the major challenges the continent faces.

The Acquired Immune Deficiency Syndrome (AIDS) is caused by the Human Immunodeficiency Virus (HIV). Two-thirds of the people infected with HIV/AIDS worldwide are in sub-Saharan Africa. According to estimates of the United Nations Programme on AIDS 20.8 million people in Africa, have been infected with the HIV virus.

No African country is free from the AIDS epidemic. But AIDS has struck hardest in Southern, Central and Eastern Africa claiming the lives of the most productive segment of the countries' population – the young professionals in the prime of life – such as teachers, engineers, bankers. Experts warn that it may only be a few years before South Africa, Namibia and other southern African countries reach the 25 per cent adult infection rate unless strong prevention programmes are soon adopted.

While the economic and social impacts of AIDS are easy to determine, such as the heavy loss of some of the governmental investment in human capital and the plight of orphans, the effect of AIDS on the growth of Africa's population is still a matter of debate. However, according to some experts, life expectancy in some of the most infected countries may reduce by 20 years.

Internal migration

African governments are also concerned with the constant stream of people including environmental refugees from the impoverished rural areas into towns and cities. Although Africa is the least urbanised region of the world, with two out of every three living in the rural areas; the continent is the most rapidly urbanising region of the world.

The urban population grew at an annual rate of six per cent annually between 1960 and 1990 and by at least five per cent in the 1990s. In 1960, only one city in Sub-Saharan Africa had a population of more than one million. Thirty years later 18 had grown to that size. In Swaziland, for example, the urban population was only four per cent of the total population in 1960. By 1990 it had increased to 33 per cent and it is projected to rise to 45 per cent by the year 2000. According to the

Ron Gilling/Still Pictures

Nancy Durrell McKenna

Top: Displaced children at a school in Liberia.

Right: Young children, Ghana

World Bank estimates, by 2030 more than half of the sub-Saharan African population will be urban.

This phenomenal growth of urbanisation is exerting pressure on the infrastructure of these towns and cities. Provision of housing, water, sanitation sewerage and roads cannot catch up with the demand arising from the influx of migrants and the natural increase of the urban population. African cities typically have two populations – one well housed and provided with a variety of services and amenities and the other ill housed and excluded from many opportunities. It is the latter group who live in slums with serious environmental problems that pose a challenge to municipal and city authorities in Africa.

The increasing pressure on resources, especially arable land, the growing poverty in rural areas and the lack of accountability and transparency among some political leaders have contributed to making the African continent an epicentre of political instability and ethnic conflicts. These conflicts apart from causing death among innocent people mostly women and children result in large numbers of refugees.

The continent has more than a quarter of the world's refugees even though it accounts for less than a tenth of its population. Such massive displacement of people disrupts agricultural production in areas from where the refugees flee, and causes environmental damage in the receiving areas.

Tackling the problem

Although, high rates of population growth were not considered as an important factor in the development equation of many African countries, there has been a significant shift in attitudes since African governments began to appreciate the impact this is having on their natural resources and on their capacity to meet the basic needs of their people.

In the last decade, and particularly since the Cairo Conference on Population and Development (ICPD) in 1994, there has been a steady growth in the number of countries that have established population commissions and family planning programmes. According to the UNFPA 1997 Annual Report, by the end of 1997, 23 African countries had officially adopted population policies and 11 others were in the process of doing so. Several countries are revising their population policies to include the goals and recommendations of the ICPD Programme of Action.

The success of countries which started implementing family planing programmes two or three decades ago gives the rest of Africa cause for optimism. Mauritius with fertility rate of 2.2 is fast approaching replacement level fertility – the number of births needed to replace the woman and her spouse. Botswana, Kenya and Zimbabwe have also experienced fertility reductions.

But given the magnitude and complexity of the development challenges facing the continent, time is becoming an increasingly scarce commodity. The demographic transition in the developed countries occurred over a long period. It is therefore unrealistic to expect rapid reduction in total fertility in Africa in a record time. It will certainly require more than an increase in contraceptive prevalence rates, important though that is, to achieve it.

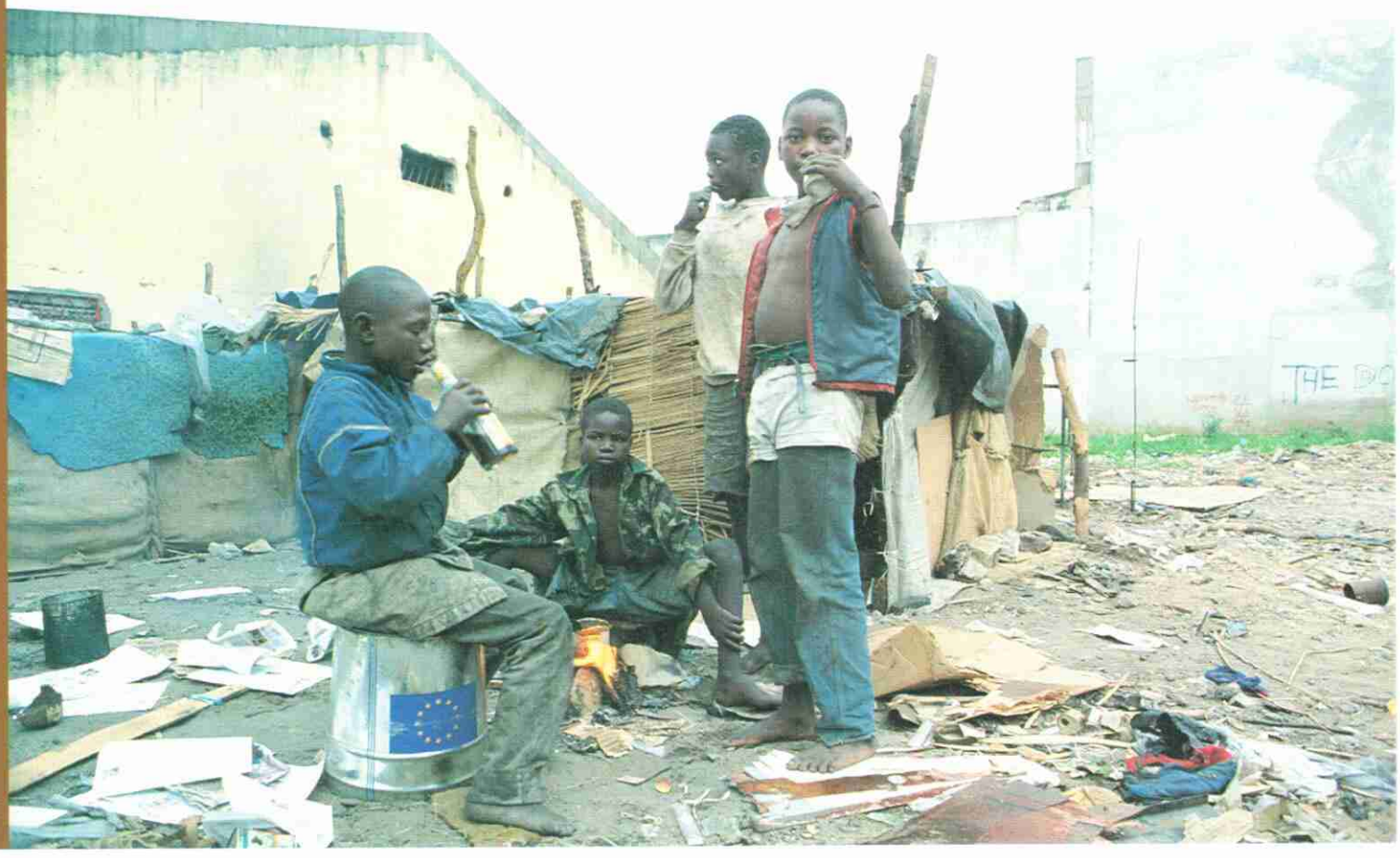
It will require provision of basic needs and services, introduction of environmentally-friendly technologies, proper management of fragile ecosystems, peace and stability and above all reduction in rural poverty. To achieve this comprehensive development agenda will require large financial investment. But above all it will require building coalitions and partnerships among local communities, government organisations, non-governmental organisations and international organisations who are involved in the continent's development. This certainly was part of the call of ICPD in Cairo in 1994.

Reduction in the rate of population growth will not be easy. But any progress, however small, is better than none since this would be translated in five or ten years time into big differences in the eventual total population. ■

Dr George Benneh is Professor of Geography and Resource Development at the University of Ghana and Chairman of the Ghana National Population Council. He is also co-editor of *Sustaining the Future* (United Nations University Press, 1996, £23.00).

[1] Cleaver and Schreiber, 1994.

Below: Street children, Maputo, Mozambique



Marc Schlossman/Panos Pictures

Interview: Dr Gro Harlem Brundtland

Giving WHO moral clout

W.H.O.

Dr Gro Harlem Brundtland took office as the first-ever woman Director-General of the troubled World Health Organisation last July.

Her credentials are impeccable. She graduated from medical school at the University of Oslo and received a Master's Degree in public health from the Harvard School of Public Health. Entering politics, she held public office in Norway for 20 years, including ten years as Prime Minister. In 1983, the then Secretary-General of the United Nations invited her to set up and chair the World Commission on Environment and Development, which coined the concept of Sustainable Development. That Commission's report was published in 1987 under the title *Our Common Future* but is often referred to as the Brundtland Commission Report. It subsequently led to the Earth Summit – the UN Conference on Environment and Development (UNCED) – held in Rio de Janeiro in 1992.

Now aged 59, she was married in 1960 and is the mother of four children and grandmother of seven.

In her first address to WHO staff following her election, she said: "Commitment to the cause of world health is a daunting task. But serving WHO is also a privilege. We can make a difference. We can build healthy communities and populations. We can combat ill health. We can do our part to combat poverty and suffering. Nothing in life – as I see it – has more meaning."

Here, Dr Brundtland talks to **John Bland** exclusively for *People & the Planet*.

Dr Brundtland comes into the austere side room of her 7th floor office at WHO headquarters in Geneva, an alert, unfussy woman, with short brown hair and a friendly smile. She wears a green jacket with black lapels, little in the way of jewellery apart from a gold necklace.

She exudes determination. Her strong chin and frank gaze both suggest a woman who knows what she wants and expects those around her to ensure that it happens. She does not duck the questions but answers confidently and clearly, in scarcely accented English but with occasional traces of her American academic background – she says the Fall rather than Autumn.

When I quote a senior WHO official as saying: "For ten years we've been a sleeping beauty. Mrs Brundtland will wake us up," she responds with a hearty laugh but denies that she sees herself as the Organisation's fairy prince. She says only that having a more coherent, consistent approach and speaking out as one will be highly important for the credibility of WHO. There will be no room within the drastically new structure for unclear or conflicting messages.

An enthusiastic believer in equality of the sexes, she has already begun the process of raising the proportion of women staff members at WHO from around 30 per cent to the ideal of 50 per cent.

I venture to say that it had been "leaked" to some WHO staff that she was writing a novel. "Not a novel," she corrects me. "I started writing my autobiography directly after leaving my Prime Minister's post, then it turned out that there was too much material for one book."

So a first volume, *My Life*, covered the earlier years of her education and entry into politics. The second was due for publication in Norway late last year and, she hoped, presently in English and other languages. Entitled *Dramatic Years*, it spans 1986 to 1996, her ten years as Prime Minister, but "it is also the story of a woman in this century going through a process of changing women's participation." So may we look forward to the next volume on WHO? Another laugh. "Well, maybe."

"WHO can and must change. It must become more effective, more accountable, more transparent and more receptive to a changing world."

Speech to the 51st World Health Assembly, 13th May 1998

John Bland: *As Director General of WHO, you embody the three concepts with which you have long been associated: Health, Environment and Sustainable Development. This must be the attainment of a dream. But how will it be possible to turn the dream into reality?*

Dr Brundtland: Well, I think you are right. My life and my work have been coupled with those concepts. I hope we will see in the new structure of the Organisation that we are linking together these aspects in a broad health perspective, for instance through a cluster of programmes on Sustainable Development and Environmental Health, a cluster on Social Change and Mental Health, and so on. Much of this comes together in my own experience. But you know, what we are undertaking is an effort made by many people and many partners so, as in the past, mine will be a catalytic role.

My major responsibility now is to improve the way that we work together with our partners, countries and all who are active in changing the conditions for health. What matters is how well we do our work, how we reach out to others, how we are able to make a difference at country level in addressing the key health concerns and reaching our long-term goals. A lot of our work is going to be truly a common undertaking.

JB: *You have laid emphasis on malaria and smoking. What other priorities do you think the organisation should address, and why do you feel they are so important?*

GHB: I chose malaria and tobacco as two important fields of concern where we needed a consistent and long-term effort to raise people's awareness and people's ability to abate the consequences. These are projects which cut

across the different programmes and different regions of the Organisation – one is in the communicable diseases area and one in the non-communicable diseases area – and hitherto there has been a lack of concerted effort to tackle these problems.

We cannot claim that we should eradicate malaria because we don't know that we can achieve it, but we can – as I put it – "roll it back." It is an enormous killer in the developing world, especially of children, and it imposes a big burden on the economies of countries. The smoking epidemic is even more widespread and just as much a killer. But these are just examples of major health concerns which we have to take even more seriously in the long term.

The whole agenda is a much broader one, of course. It is Health for All, it is Equity, it is Primary Health Care, it is really working with countries to invest in health, to alleviate poverty, to prevent disease, to promote healthy populations.

"Health has not received anything near the attention and the resources that are needed. It's role in development has for much too long be underestimated...I am deeply convinced that WHO should be – and can be – a catalyst for raising the status of health on the international political agenda...Health is pivotal. Health is the core of human development."

Addressing WHO's Executive Board, 26 January 1998

JB: *You have been very outspoken in the past about the need to protect the environment. Indeed, the Brundtland Commission Report provided the impetus for efforts to achieve Sustainable Development. How do you relate this term to the work of WHO, and how do you see the link between this and your current concerns with the health of human populations?*

GHB: The World Commission Report was based on a very broad mandate, and we chose to look at all the linkages across the board and then coined the concept of sustainable development as the only workable notion that would be forward-looking, intergenerational and capable of bringing together poverty and the environment, health and development. So WHO has an important role to play within that concept, together with other UN agencies.

We are engaged in advising countries and working not only through governments but through various institutions and NGOs to implement Agenda 21, which is what came out of the Rio Conference some five years after the Report. Health is a crucial part of that whole Agenda, as indeed it was in Rio, in Cairo, in Copenhagen, in Beijing, even in Vienna on Human Rights, so we have to look at all these major conferences where health has been an important perspective.

JB: *As you know, in February in The Hague there will be a Cairo+5 Forum to examine the consequences of the world reaching a population of six billion. What are your views on this rather daunting prospect?*

GHB: Perhaps we should not get into too much gloom about this, because in a way I think there has been quite a considerable achievement with regard to population. While the average woman around the world in 1950 had five children, now the figure is down to between two and a half and three, which amounts to a considerable change. Now although the family size has fallen people live so much longer – which I see again as a great achievement for public health. So it means that population is still increasing. But as you know, without the considerable improvements in family planning and in the number of children per family we would have been much worse off.

The rate of population increase has declined since 1950 from 1.8 per cent to 1.4 per cent. We still have a problem, because six billion is still a lot of people and the resource base is limited. This means we have to continue working so that at least people have a choice and can really make decisions as much as possible on the size of their family and the timing of the children.

We still have a lot to do in the field of family planning and reproductive health, and also in abating poverty, because we know one of the reasons why the size of families has gone down is poverty alleviation. Once people are out of poverty, they have a greater ability to make those kinds of choices in life, and they also have the perspective that their children will survive to take care of them when they are old, which they didn't in the past, and that was one reason why families were so big.

"We have the moral clout and the scientific and health expertise to speak out against political malpractice, whether or not this is attributable to government policy."

Addressing WHO's Executive Board, 26 January 1998

Hartmut Schwarzbach/Still Pictures

JB: *What can WHO contribute in areas such as reproductive health, where, historically, it has not always been in the forefront?*

GHB: I don't think it is correct to say that the WHO has not had a competent and strong voice on reproductive health. On the contrary, we have been doing good work and will continue doing so. We have had an important programme for 25 years on Research in Reproductive Health, much of it research into evaluating best practices

and giving the right technical advice on good family planning and on preventive and other aspects of reproductive health. Those advocacy functions have been shared with others, for instance UNFPA, which is a fund mobilising resources for family planning, while the work of WHO has really been to produce the programme content and the tools and a good solid base from which to act. Certainly we are partners in development efforts to try to improve access for families to family planning methods. But our key role is that of a specialised agency, a centre of excellence charged with giving the advice and pooling the knowledge.

JB: *You have quoted research in Egypt showing that "every pound invested in family planning saves 30 pounds in future expenditure on food subsidies, education, water, sewage, housing and health expenditure." What can WHO do to increase the investment in family planning?*

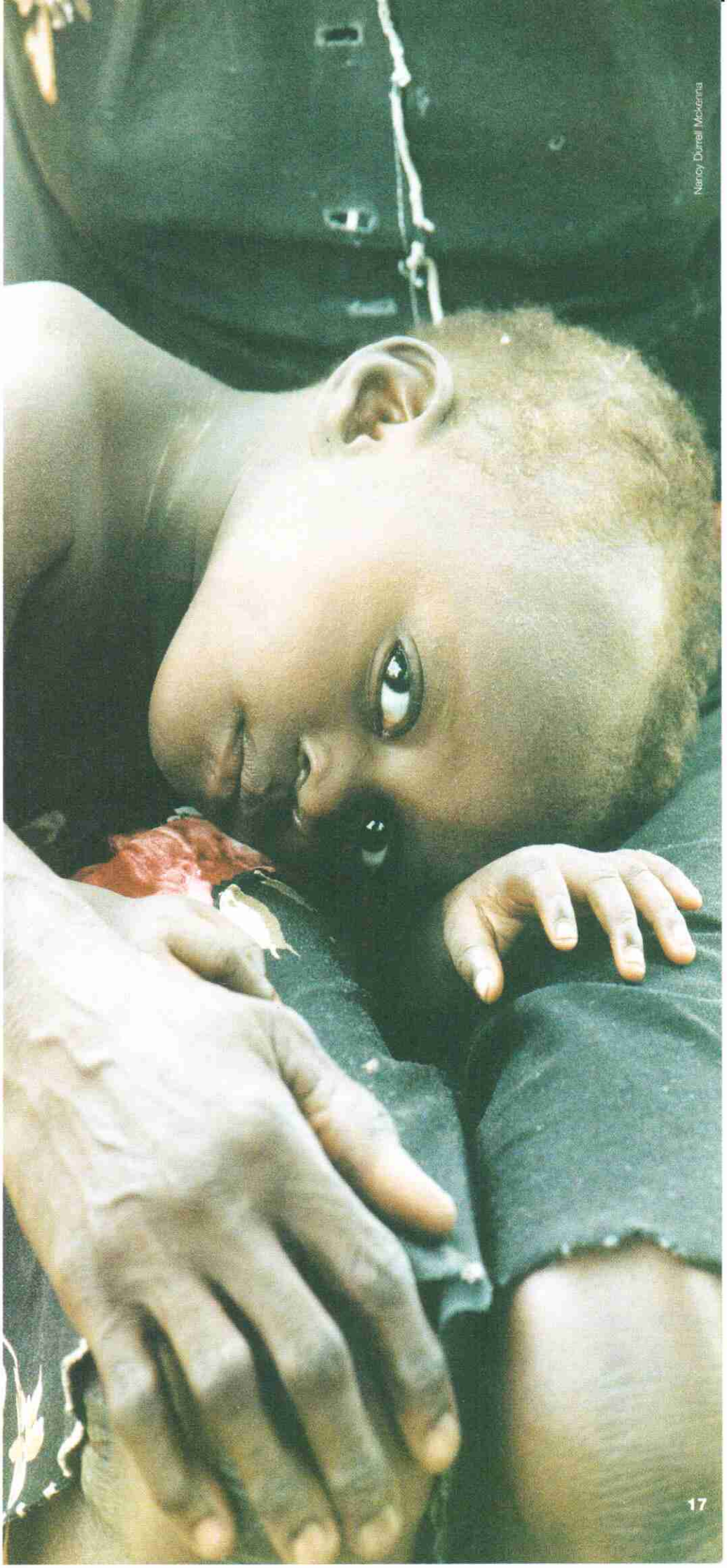
GHB: This was an interesting study, which formed one of the inputs into the Cairo conference, and this kind of analysis is really what we needed to inform and convince people about the importance and the outcome of investing in health – that it pays to invest in health, in this case in family planning.

We need to show decision-makers that investing in health is also a good investment in economic growth. This is why I have created at WHO the new cluster on Evidence and Information for Policy; we need an even greater and more consistent effort in pulling together the evidence, because that is the strength of the Organisation – its ability to advocate best practices.

JB: *More broadly, how has your thinking changed on the prospects for a sustainable future? Are you more or less optimistic that we can create a healthy world for healthy people by the middle of the next century?*

GHB: I wish I could be around at that time to know (she laughs). I think if you look at what has happened to improve human conditions during the last decades, and at the pace of new research findings in health fields – new drugs, new vaccines – I believe the ability to improve life considerably and alleviate poverty is there. Of course, it's a question of political will; we need to improve participation and build democracy around the world in order to bring about true poverty alleviation. ■

John Bland is former Editor of WHO's illustrated magazine *World Health*.



Nancy Durrell McKenna

Left: Smoking is a "widespread killer"
Right: Traditional birth attendant with grandchild

For a very small price the reproductive revolution, allowing all children today born by choice not chance, with good health care, can be achieved in the first 15 years of the new century. But if that price is not paid, everyone will count the cost. **Bryant Robey** and **Ushma Upadhyay** report.

Speeding the reproductive revolution

Five years ago, in Cairo, the world's nations set the goal of universal access to reproductive health care by the year 2015 and agreed to finance its costs. Imagine, then, a world in which access to care brought good reproductive health to all people:

★ HIV/AIDS and other sexually transmitted diseases no longer plague the planet.
★ Women have safe pregnancy and safe delivery of their children.
★ Sexual violence is a thing of the past.
★ Husbands and wives share responsibility for family health.
★ All pregnancies are intended; all births are planned. People have only the number of children they want, when they want them.

Fertility falls. With lower fertility, other benefits follow: women have more choices and social, educational, and economic inequities by gender diminish. With fewer children, families can better feed, house, clothe, and educate their children. Healthier and better educated young people become more productive, improving lives and speeding national development.

Pressures on natural resources and the environment diminish, while living standards rise. Adequate supplies of freshwater and arable land help assure ample food production, proper sanitation, and good health. Soon, development becomes sustainable.

Could such a world exist sometime in the future, or is it only a Utopia? There is reason for concern. Few governments and donor nations have delivered on commitments made at the International Conference on Population and Development (ICPD) in 1994. Reproductive health is not improving, and it may be getting worse:

★ More than 30 million adults and about 1 million children are infected with HIV/AIDS. Other sexually transmitted diseases (STDs) are on the rise; about 330 million new cases appear each year.
★ Of the 175 million pregnancies each year, an estimated 75 million are unintended. In developing countries unintended pregnancies carry a health risk 20 times greater than the risk of using contraception.
★ An estimated 585,000 women die each year from complications of pregnancy, childbirth, and unsafe abortion. Unsafe abortions cause between 50,000 and 100,000 women's deaths each year.
★ Around the globe, between one-quarter and one-half of women have been physically abused by a sexual partner.
★ In developing countries an estimated 100 million married women of reproductive age are considered to have unmet need for family planning – that is, they do not want to become pregnant but are not using any contraceptive method.

While fertility has fallen in most countries, population is still growing rapidly, at about 220,000 people every day, or some 80 million every year – the equivalent of the current population of Vietnam or Germany. Continuing population increases of this magnitude, added to a population base already approaching 6 billion, would carry ominous consequences for the planet and its people in the future.

The 179 countries assembled at the ICPD agreed to an expanded reproductive health agenda, addressing not only

Shehzad Noorani/Still Pictures

fertility, family planning, and development but also reproductive rights, gender equality, women's empowerment, and men's participation. Country representatives agreed to some specific reproductive health goals to be reached by 2015, including:

★ To meet all unmet need for family planning;

★ To reduce maternal mortality by three-fourths compared with 1990 levels; and

★ To reduce infant mortality to below 35 deaths per 1,000 births.

Far short of the goal

Reaching these and related reproductive health goals of the Conference was calculated to cost about US$17 billion per year until the year 2000, rising to $22 billion per year by 2015 (in constant 1993 US dollars). Developing countries agreed to pay two-thirds of the cost; donor countries, one-third. While $22 billion per year represents a substantial increase over existing support for reproductive health, it is less than the world now spends on military expenditures in only 11 days.

Of the annual $22 billion, $14 billion would provide family planning information and services and improve the quality of care for over 600 million couples and would offer everyone access to safe and reliable contraception. Another $6 billion would support maternal health programmes and other primary health care related to reproductive health, including information and services for antenatal and postnatal care, emergency obstetric care, and treatment and counselling about STDs. And $1.5 billion would go for prevention of HIV/AIDS and other STDs through mass media and in-school education programmes, promotion of voluntary abstinence and responsible sexual behaviour, and expanded distribution of condoms.

Immediately after the ICPD, reproductive health funding increased substantially but then fell back again. The United Nations Population Fund (UNFPA) reports that in 1996 donor countries provided about $1.8 billion for population activities, far short of the $5.7 billion goal for donor countries in 2000. Most donor countries have lagged behind in meeting their commitments.

One might expect that reaching the ICPD goals would be easiest to achieve and fairest if the distribution of assistance among donor countries was relative to their ability to pay. Yet each country determines its own funding amounts, not according to the international need but to domestic priorities and politics. In absolute amounts, the top three donors are, in order, the United States, Germany, and Japan. On a per capita basis, however, Norway, Denmark, Sweden, and the Netherlands contribute most, setting a world example.

In the United States, which has previously provided half of donor population assistance, cuts amounting to some 35 per cent in recent years have seriously set back efforts to achieve ICPD goals. Japan, however, in its desire to play a larger role in global efforts, has stepped up its contributions. The United Kingdom has protected reproductive health and family planning programmes from recent budget cuts and continues to expand its population assistance. Belgium, Italy, and Spain, which historically have not provided population assistance, have begun to do so in a small way.

Multilateral sources, including the World Bank and regional development banks, agreed to contribute towards the donor-country target of $5.7 billion per year. The World Bank has adopted the ICPD agenda and is paying more attention to expanded reproductive health issues, instead of demographics. Still, the Bank could play a greater role, while other international banks could expand their health lending further.

If donor institutions as a whole do not improve upon their current performance, contributions are expected to fall at least $2 billion short of the $17 billion goal for the year 2000 – next year – and possibly as much as $3.8 billion short. To avoid a shortfall, donor nations would have to increase their contributions by an average of 23 per cent on an annual basis, the UNFPA estimates.

Consequences of failure

The UNFPA has calculated the consequences for reproductive health of failure to deliver on promised financial support for the ICPD goals. Even under the most optimistic funding scenario, in which the funding falls $2.1 billion short per year, the number of unintended pregnancies would be 42 million more next year, the year 2000, than if funders met their commitments. The number of induced abortions would be 17 million more. An estimated 99,000 more women would die of maternal causes in 2000, and there would be 1.2 million more infant deaths. Nearly 100 million people would be left without access to family planning information and services – a number equal to the current entire estimated unmet need for family planning.

Such dismal numbers would appear not only next year but would be repeated in 2001, 2002, and every year thereafter, as long as countries continued to fall short of the goal.

Obviously, these numbers would become much worse if governments and donor nations fell further short, while progress toward meeting the goal would save lives and improve health. Improved funding would also increase the availability of contraceptive methods, the number of programmes and projects carried out, the quality of services offered, and the amount of information that people could receive. Ultimately, failure to meet the goal would mean higher fertility rates and faster population growth, putting more pressure on the environment and making sustained development only an empty promise.

What can be done?

Countries at the ICPD did not intend to describe a Utopian world of the future but to set forth realistic and achievable goals for the international community. It is no secret that family planning and other reproductive health programmes work. Thanks in large part to family planning programmes, as well as other progress in development, fertility rates in developing countries have fallen by nearly half compared with levels in 1960, while contraceptive use has risen from just one person in every ten in 1960 to about half of all women of reproductive age today. But what of the future?

Five years after the ICPD there is still time to continue the progress of recent years and, as promised, to expand the reproductive revolution. But governments still need to be convinced that paying for reproductive health programmes is an urgent priority and that developing countries, donor countries, and multilateral institutions all have much to gain from reaching the ICPD goals.

Reducing human suffering and improving the quality of life is everybody's responsibility. Over the long run, increased national wellbeing also strengthens the global economy, international trade, political stability, and co-operation on such critical international issues as the environment, human rights, and security. Delay in meeting the ICPD goals means more problems in the future. The sooner the international community recaptures the spirit of the ICPD, the more the world can be a place future generations will be able to inhabit. ■

Bryant Robey is editor of *Population Reports* and Ushma Upadhyay is research analyst at the Johns Hopkins Population Information Program.

CONSEQUENCES OF FUNDING SHORTFALLS IN 2000 (source: UNFPA)	
Reduction in potential users of family planning services	97 million
Increases in unintended pregnancies	42 million
Increases in induced abortions	17 million
Increases in maternal deaths	99,000
Increases in maternal morbidity	1.3 million cases
Increases in infant deaths (ages 0-1)	1.2 million
Increases in child deaths (ages 1-5)	440,000

Inside story: China

A quiet revolution in Datonghui

In a project bravely financed by the UN Population Fund, China has embarked on a revolution in reproductive health care in 32 counties, aimed at replacing the one-child policy with free choice over family size and high quality services. **Don Hinrichsen** travelled to one remote county to see how the project is progressing. This is his exclusive report.

Don Hinrichsen

Zhang Xinhua, an attractive woman in her early thirties, sits on a bench outside the small family planning service station in the tiny township of Liangjiao, in Datonghui County, buried deep in the Loess Plateau of north-western China. It is a rugged, unforgiving landscape. The Yellow River, often referred to as 'China's Sorrow', rises out of these eroded hills on its way to the Bo Hai Sea.

Though most of Qinghai Province, where Zhang's village is located, consists of hilly, semi-arid grasslands, this is farming country. Close to 60 per cent of the entire population of five million lives and works on just 3 per cent of the province's land area. The treeless hills around the village have been cultivated continuously for some 3,000 years. Every square metre of soil that can bear crops has been put to the plough. The entire landscape is a checkerboard of wheat, maize and vegetable fields.

Zhang's one hectare farm grows mostly wheat and some vegetables for household consumption. The land is fertile and produces more than enough to feed the family, two adults and three children. During surplus years, she can even put some money in the bank. Still, Zhang's life is not easy. Her husband injured his back in an accident and is unable to perform most of the heavy work that must be done on a farm. Zhang does most of the farm work herself, with help from two of her three children. The third child, a boy, is afflicted with epilepsy and is enrolled in a special school. Her other son and daughter pitch in to help with chores after school.

Despite her difficulties, Zhang is optimistic about the future. She has advantages some of her neighbours do not. Zhang is a high school

Left: Mother and child of the Hui minority group
Right: Zhang Xinhua waiting outside the family planning service station, Liangjiao

Don Hinrichsen

graduate and is literate. Many women in her village, especially those belonging to the Hui minority which are predominately Muslim, did not even get a chance to pass through primary school. Traditionally, Muslim women were not educated and in some villages female illiteracy is as high as 60 per cent. Zhang values her daughter as much as her two sons and intends to keep all of them in school as long as possible. "I want them all to go to the university, if they have the aptitude and interest," she explains in a clear, even voice. "I want my children to make a living with their heads, not their hands."

Zhang has come to the clinic for a routine check-up. "With a handicapped child and a crippled husband, life is difficult," she says matter-of-factly. "So I decided to get sterilised. I will not have any more children." Now she is looking forward to raising her three children and making some extra money by selling vegetables and sewing clothes. "The only problem I have with this clinic," says Zhang, "is that I can't always get the treatment I need here. Going to the county hospital takes one hour by bus each way and costs 4 yuan for the round trip. We need more services here," she adds emphatically.

No more quotas

More and better reproductive health services is precisely what this out-of-the-way family planning clinic will be getting soon, thanks to a new $14 million project financed by the United Nations Population Fund (UNFPA). It is part of a quiet revolution going on in reproductive health and family planning in China; a revolution that has gone virtually unnoticed so far by the media.

In 32 counties in 22 of the country's provinces, the State Family Planning Commission, working closely with the Ministry of Health and the China Family Planning Association (an NGO affiliated to IPPF), is abandoning birth quotas and targets for family planning acceptors.

At the same time, the services in family planning clinics and primary health care centres will be upgraded. Women and men will be given more freedom of choice when selecting contraceptive methods, including wider access to alternatives such as condoms, pills and injectables. Currently, the most common family planning methods are sterilisation and IUDs. At the same time, the quality of reproductive health services will be improved significantly through an expanded training programme for health care providers, and through the provision of modern diagnostic equipment and supplies alongside better counselling, which will include informed consent.

Dr Song Hou Qin, the physician in charge of the Qinghai Provincial Family Planning Commission, is enthusiastic about implementing the project in Datonghui County, a county of some 1,000 farming villages tucked away in the hills about 40 kilometres north of the provincial capital of Xining. "We chose this county as one of the project sites because it has a fairly mixed population – 45 per cent consists of various minorities, with 55 per cent Han Chinese," she points out. "As a result, we have a significant number of Muslims, as well as Buddhists and some Christians. In addition, the county is rural and needs better services, and the provincial and local governments strongly support this effort."

As part of the strategy, Datonghui County is strengthening its capacity to deliver quality reproductive health services to more women and men. "We are actively training our local family planning service providers, giving them better face-to-face counselling techniques," explains Dr Song. "We are also designing and distributing more focused Information, Education and Communication (IEC) materials, aimed at the needs and concerns of local women, and we are making full use of new technologies to improve the quality of reproductive health care, including better pre-natal, post-natal and peri-natal services and attended births for all women."

China's quiet revolution in reproductive health care is using other non-threatening methods to help encourage smaller families. Women who have just one or two children, for instance, and agree not to have any more, are given low-interest loans of up to 8,000 yuan each ($1,000) and help with household financial management. Other families are able to get outright grants enabling them to buy seeds, fertilisers or equipment. These loans and grants, given out by the Family Planning Commission, have made a significant difference in the lives and status of countless women across the country.

Between 1996 and 1998 in Qinghai Province, the Commission assisted over 2,000 families with loans and grants totalling close to 4 million yuan ($500,000). The Commission also gives out life insurance policies to families with just one child, or those with two girls and no boys. In Qinghai Province alone, over 5,000 one-child families along with 2,500 families with two girls were given life insurance policies. This web of incentives has helped to reinforce, in a positive way, China's family planning initiatives.

Revolving fund

In Qinghai Province the seeds for this integrated approach to women's empowerment and better reproductive health services were planted by the United Nations Population Fund in 1990. The Fund helped provincial authorities set up a revolving fund, dispensing low interest loans to local enterprises that agreed to hire and train women managers. The loans were repaid into a revolving fund that was then used to offer more women a chance to initiate income-generating projects. At the same time, UNFPA provided funding for literacy training, hospital and clinic-based deliveries, and improved counselling services.

Beneficiaries of this largess are not hard to find. Dong Xiuying and Han Lizhong have been married for over a decade and have two children, both

girls (in China married women keep their own names). They live in the small farming community of Duolin, just off a dirt path through a warren of walled-in housing compounds. After the birth of their second girl, Dong decided to undergo sterilisation. "We did not want to have any more children, even though we could have up to three," she explains. "We have only a little over one hectare of land, not enough to support a larger family, and also we want both our girls to go on to higher education, if they are interested."

Educating girls

A few years ago, the Family Planning Commission arranged for Dong, who is a member of the Tu minority, to receive a loan of 4,000 yuan ($500). She used the money to buy 30 sheep, which she promptly bred, doubling their numbers in three years. She now sells sheep to neighbours who want to start their own herds. The wool is sold to a nearby textile mill. Within the span of two years, Dong was able to more than triple the family's income from 2,000 yuan a year to 7,000 yuan. Although this may not seem like much money, it is a hefty sum considering that the average annual income in this region is around 1,200 yuan per person.

"We have some money in the bank now," explains Dong. "But the most important thing is that the extra income has allowed us to build a new brick house, keep our daughters in school and to buy fertilisers so we can increase the yields of our wheat and vegetable crops."

Dong's story is not unique. Not far away, in the farming township of Liangjiao, Ye Ashe was also given a loan by the Family Planning Commission. Like Dong, Ye has two daughters, both in primary school. After her second child, Ye began to use contraceptive pills. "My husband was out-of-work then, and our small plot of land is not that productive," she explains in a quiet, shy voice. Ye used the 3,000 yuan loan to buy two milk cows. The milk they give every day is converted into yoghurt and sold. Also, Ye's husband now has a job in a nearby coal mine, steady work that the Commission helped him to find.

Thanks in part to the work of local family planning workers, the minority groups that comprise close to half of the population of the province, now realise the value of an education. In the past, in some Muslim communities, female illiteracy was universal and the girl child had no value in the family. Today, these old traditional views are being pushed aside by a new generation, one that values education – of both boys *and girls* – and a new sense of purpose, as economic opportunities have seen family incomes double and triple in many communities.

"One of the keys to our strategy is that we are now stressing the education of girls and women and the promotion of income generating projects for women," explains Mrs Hao Linna, Deputy Director of the Department for International Co-operation in the State Family Planning Commission, in Beijing. "When you combine these elements with a renewed effort to deliver quality reproductive health services to more people, offering them a wider choice of contraceptives and services, we are convinced that people will make rational choices."

Lower population growth rates remain a top priority for the Chinese Government, which views the issue as one of crucial importance for the future of the country. "Anyone who has visited China will see right away how important it is to limit population growth," observes one Scandinavian diplomat based in Beijing. "China has a population of 1.2 billion people, with 94 per cent of them living in the eastern third of the country. Imagine that many people all crammed together east of the Mississippi River in the United States and you get a picture of how crowded this country is by comparison."

Even so, the one-child family is not a universal policy. In rural areas, couples can have two children if the first baby is a girl. Minorities can have up to three children per family and Tibetans have no limits on family size. Unofficially, of course, many Han families have more than one child. In fact, the average number of children per family in China is close to two. And many pay no penalties at all for having more than one.

Great gains

"The innovative approach of the new UNFPA programme to the provision of reproductive health and family planning services in China constitutes a potentially momentous step for the country," points out Sven Burmester, UNFPA's Country Representative for China. "We will be monitoring this project closely."

Against a backdrop of strident, often ill-informed, criticism levelled at China from conservative elements in the US Congress and elsewhere, the country has made great gains. Average life expectancy increased from 49 years in 1957 to 70 today, while maternal mortality dropped dramatically from 1,500 deaths per 100,000 live births in 1940 to 95 per 100,000 live births in 1995.

"In a sense, the country has gone through a family planning revolution by reducing the total fertility rate from over 5 children per woman in 1970 to 2.4 by 1998," says one old China hand. Now the State Family Planning Commission and the Ministry of Health are beginning to launch nothing less than a reproductive health revolution. ■

Don Hinrichsen is a Contributing Editor of *People & the Planet*.

● A report on the United States decision to withdraw funding from UNFPA over its work in China is on page 32.

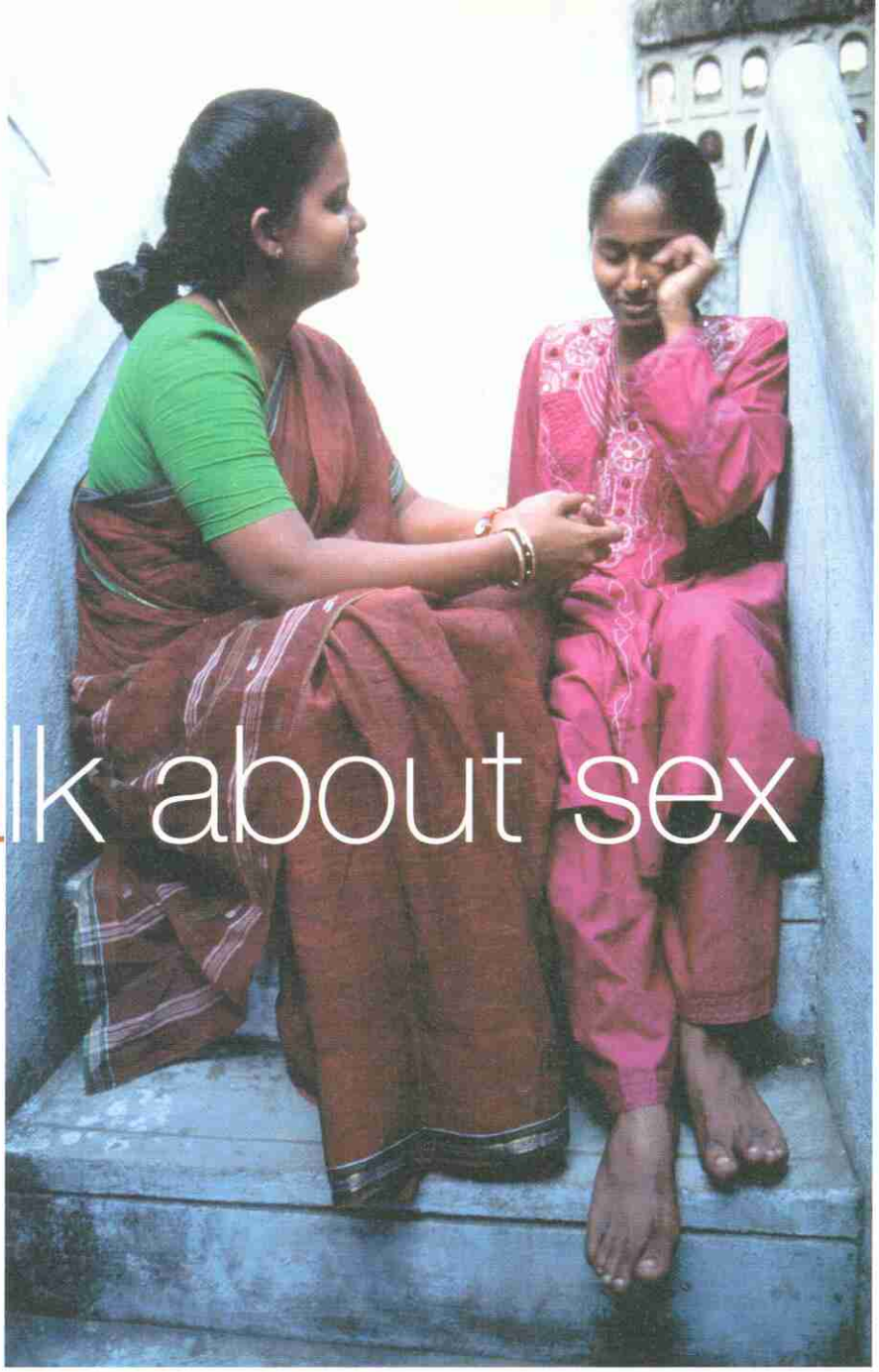
Don Hinrichsen

Left: Girls are now in school at least until the age of nine in the entire province.

Inside story: India

Worldwide, six out of ten teenage pregnancies are unplanned, with major social, economic and health consequences. The problem is especially worrying in a country like India where the teenage population is expected to grow from 190 million to 240 million by 2015. **Anita Anand** reports from Delhi on the urgent need for better sex education.

Let's talk about sex



Mark Edwards/IPPF

When I was growing up, no one told me about sex. I was born in a middle class home and attended a Catholic girl's school. In 1965, when I was 16, at a biology class, the doors of the classroom were closed, and a nurse was brought in. She asked the 30 plus young women present how many knew where children came from. After some moments of uncomfortable, silent deliberation, about five hands went up.

In India, sex is only talked about when it has to be, and even then avoided. But as the world nudges towards a new century, concepts of women's empowerment, delayed marriage, availability of contraception, HIV/AIDS, teenage pregnancy, and more, beg the question: when should people be told about sex; how much should they be told, who should tell them, and how can they have a healthy sexual life?

Statistics, among other things, show how urgently answers are needed.

By the year 2015, the New Delhi office of the Population Council estimates, India will have a population of 240 million adolescents. Thirty-six percent of married adolescents in India, between 13-16 years, and 60 per cent between 17-19 years are already mothers or pregnant with their first child. Given this, inaccurate or no information about sex is worrisome.

The above figures correspond to 17 per cent of all teenage women between 13-19 years. Of those unmarried, hospital records indicate that pregnancy outside marriage is rising, judging by the number of requests for abortions.

Shireen J. Jejeebhoy, a Bombay-based reproductive health researcher, in a 1996 study found that much of the available information was exploratory and recent, with little or no attention given to reproductive health.

Adolescent marriages were common, and much of adolescent fertility occurred in marriage. Married young, about half of the women are sexually active by the time they are 18 and before, and one in five by the time they are 15. Over half of all women between 15-19 have experienced a pregnancy or birth. Between 20-30 per cent of all males and up to 10 per cent of all women are sexually active during adolescence, before marriage.

Sexual awareness was superficial, and social attitudes (passed on from older generations) reflected norms of premarital chastity, especially for young women. Young men have more opportunities for sexual exploration, and approve of premarital sexual relations for themselves. Married and unmarried young women are unprotected from pregnancy and prone to sexually transmitted infections. They tend to have less decision-making power in sexual relationships.

But it is only recently that young people have been asked for their views on sexuality.

Four studies commissioned by the International Centre for Research on Women (ICRW), Washington DC, between 1996-98 found that more adolescents are sexually active before marriage and outside of marriage, than was

Above: An FPA of India counsellor with a teenage client in Chennai (Madras).

previously thought.

According to a study conducted by the Tata Institute of Social Sciences (TISS), low-income college students (between 16-22 years) in Mumbai (Bombay), felt sex education should begin from Class 8 (eighth grade), continuing through college; early sex education would not lead to greater promiscuity. They wanted to know about menstruation, nocturnal emissions, masturbation, intercourse, pregnancy and contraception, sexually transmitted diseases (STDs) and AIDS.

Young women in the sample survey believed that condoms were pills to be used by women and men.

Teachers of the same students felt that early sex education would lead to greater promiscuity among students, and were not in favour of sex education in schools and colleges, fearing it would face opposition from parents.

The same research found that reproductive tract infections (RTIs) and gynaecological diseases are alarmingly high. The Tamil Nadu study found that one out of every two married women in the sample was infected with RTIs. The consequences of undiagnosed and untreated RTIs are increased vulnerability to HIV infection, premature births, low birth weight, ectopic pregnancy and infertility.

The study in rural Maharashtra found that 51 per cent of adolescents reported at least one type of gynaecological problem, such as menstrual irregularities and prolapsed uterus. Contraception was not used for spacing, and temporary methods (such as the 'safe' period or abstinence) were hardly used. They resorted to abortions, often using unapproved practitioners, increasing the risk of infection.

Existing reproductive health services do not serve adolescents – even married adolescents – and there is under-use of the services that do exist. Eight out of ten married adolescent women did not use these health services for postnatal care, and half did not use services for gynaecological problems.

Young women said it was not a serious enough problem, the mothers-in-law suggested home remedies, and there was general embarrassment in talking about gynaecological problems.

The ICRW studies suggest the need to provide knowledge; skills; increased availability, quality, and access to sexual and reproductive health services; supportive adults; and to test and evaluate a range of interventions.

Given the situation, the new tomorrow for young women and men lies in various innovative projects.

Prerna, an NGO working with adolescents in several parts of India found that young women want income generation skills to "stand on their feet," career counselling, and assistance in planning their future.

The Society for Education, Action & Research in Community Health (SEARCH), a Maharashtra-based NGO, found that young people want bank accounts and access to a telephone. Young women and girls come to adolescent camps, through word of mouth, bringing their mothers.

Seva Mandir, a Rajasthan-based NGO organises camps and competitions of music and dance to motivate young people and their parents to discuss, among other things, reproductive health problems. It all started when illiterate parents asked for assistance with their children's home work.

In Gujarat, Ahmedabad-based NGO Chetna holds camps for adolescents, using innovative videos to motivate young people to talk about their aspirations.

The Delhi-based Parivar Seva Sanstha (PSS), is an NGO affiliated to Marie Stopes International. Since 1979 it has provided, among things, an abortion clinic. PSS's Family Life Education programme centres on discussion groups held at the request of schools, industrial houses, NGOs and other organisations. They start with 'body mapping' or naming body parts and this functions as an ice-breaker.

The South India Trivandrum-based NGO, Sakhi, says parents feel they cannot talk about sex, are themselves ignorant and ask for help. Teachers are embarrassed to talk about sex in classrooms of 60 to 80 students.

Most health professionals in the interventions mentioned above agree that there is no way of knowing if the workshops change any lives. Yet, a start has been made by recognising that young people do need help.

Adolescence is a period of exploration, growth and change, requiring an environment of love, support, information and attention. Most important, the adults that interact with them – parents, teachers, counsellors, medical professionals and health workers – need an open and honest attitude about sharing information on sexuality and reproductive health.

Paul Harrison/Still Pictures

Given that Indians are raised to believe that sexuality is shameful, masturbation and homosexuality a perversion, and knowledge of sex a guarantee to experiment – it's a tall order. But there is no turning away from this responsibility.

If the research is correct, then some quick work is needed to respond to the scale of the challenge. And, while small-scale interventions of NGOs are admirable, broader action is also needed. A senior Union Cabinet minister recently informed an international meeting on AIDS that India would never face an AIDS-related crisis as "we are a moral nation and don't have things like this," meaning, among other things, homosexuality, and pre – and extra-marital sex.

But now, the emergence of HIV/AIDS provides an opportunity to tell the truth about sex and to discuss human relationships.

The truth is that as Indians, we do "have things like this" and I for one am proud that my nine-year-old son knows where he came from and how he got there. He knows what a condom is, what it's used for, and what AIDS is. And, he got the correct versions from me, and my husband. ■

Kim Naylor/Christian Aid/Still Pictures

Above: Adolescent girls, India.
Left: Health worker explains how to take the pill to an illiterate woman.

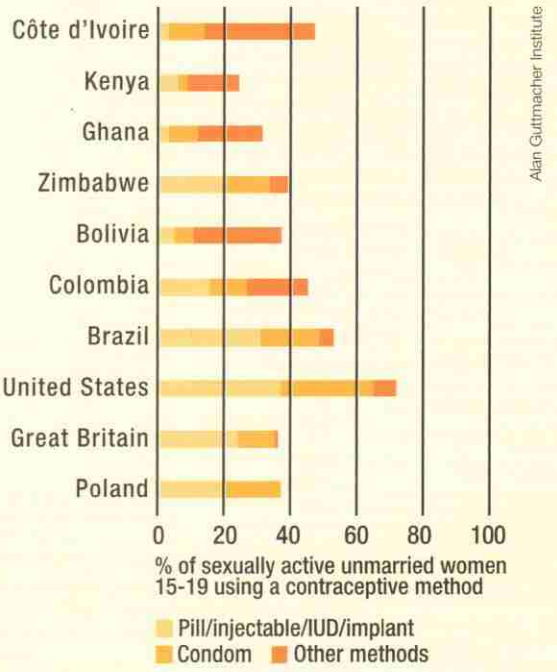
UNPLANNED BIRTHS

Up to 60 per cent of adolescent births throughout the world are unplanned, and about one in nine adolescents lack the contraceptive protection they need to prevent an unwanted pregnancy, according to a recent report by the Alan Guttmacher Institute.

The Washington-based Institute also found that one-third to two-thirds of young women obtain less than seven years of schooling in most developing countries and over 3,000 million cases of curable sexually-transmitted diseases occur worldwide each year, with young women especially susceptible to these diseases and bearing the most serious consequences.

"Parents, communities and governments must recognise how quickly the world is changing, and how imperative it is to direct attention to improving the situation of girls and young women. Indifference, wishful thinking and denial will not prepare their children, particularly their girls, to take their rightful place in a modernising world."

The report brings together comparable data from 53 developing and developed countries of Asia, Latin America, the Caribbean, North Africa, West Asia, Sub-Saharan Africa, Western Europe, the United States and Japan.



Unmarried teenage girls in developing countries tend to rely heavily on traditional methods of birth control

Into a New World: Young Women's Sexual and Reproductive Lives is available from the Alan Guttmacher Institute, 120 Wall Street, New York, NY 10005, USA. Tel: (+1 212) 248 1111, fax: (+1 212) 248 1951, Email: info@agi-usa.org

Inside story: Indonesia

Star perfor

In recent years, Indonesia has been a star performer in family planning. Now the Asian financial crisis is putting the programme into jeopardy. **Atika Shubert** reports.

Only a year ago, the National Family Planning Co-ordination Board (BKKBN) was patting itself on the back for a job well done. But recent events have delivered a crippling blow to the world's fourth most populous country and now development workers watch in horror as the country's hard-earned gains slowly ebb away.

The facts speak for themselves. According to the Central Bureau of Statistics nearly 80 million people, or 40 per cent of the population, had slipped under the poverty line and that number was expected to reach 100 million early in 1999. The International Labour Office (ILO) estimates that some 12 per cent of the workforce is now officially unemployed, a number that masks Indonesia's large portion of underemployed. The combination of unemployment and decreasing family income is a lethal mix, setting the stage for the last thing that Indonesia needs: a baby boom.

"We're very worried that we could have a population problem again," the President of Indonesia's Planned Parenthood Association, Dr Azrul Azwar, says. "Even more bitter are the problems that these new-borns face. For many families there's no money, no food and not enough protein for these babies."

Munatjid Billah, Area Director for Planned Parenthood, estimates that fertility rates in his area of South Jakarta have already risen by more than 2 per cent in the last three months. Though there are no concrete figures available yet, Munatjid admits the anecdotal evidence doesn't look good. "We're beginning to see more dropouts from the family planning programmes." Munatjid says, "Families are being hit by layoffs so the husbands are home most of the

Mark Edwards/Still Pictures

mer under stress

day. And there's no money coming in to buy rice let alone condoms."

With the local currency devalued by more than 60 per cent, the prices of food and medicine have rocketed. Families are having a hard enough time putting food on the table, much less affording medicines and contraceptives. One typical mother of two children, with a third on the way, Mrs Ernawati, agrees. "I will have to stop paying her school fees," she says nodding to her smiling eight-year-old daughter, "We don't buy milk anymore for the children, and the medical bills are becoming a problem."

Mrs Ernawati's husband hasn't had a job for over six months and the meagre income provided by the trading of odds and ends is barely enough to cover their daily food needs. Her unplanned pregnancy could not have come at a worse time. She knows that family planning is important and she used to take contraceptive injections, but she admits to skipping visits to the doctor when she could not afford the clinic fees.

According to Dr Asril, head physician at a Jakarta family planning clinic, Mrs Ernawati's example is not unusual. Many Indonesian families that were once middle-class have fallen on hard times and can no longer afford basic medicines. Dr Asril surveys his empty clinic and laments, "We used to have 20 or 30 patients a day. Now maybe two people will come in. And not one person has come in today."

The cause, he says, is the huge increase in the price of medicine and contraceptives. The cost of one cycle of contraceptive pills is now Rp 2000 (25 US cents) compared to Rp 500 only a year ago. Even though Dr Asril's government-subsidised clinic charges considerably less than market rates, many patients are scared away by the prospect of high medical bills. "Instead, our phones are constantly ringing with people asking for advice," Dr Asril explains, "but no one wants to come in anymore."

Many experts fear that with unsafe abortion accounting for 15-30 per cent of all maternal deaths, many more women will be put at risk. According to Dr Izhar Fihir of AVSC International, the recent economic and political crises is causing "a shortage of contraceptives which will lead to more unintended pregnancies and the incidence of abortion."

To prevent further dropouts, organisations like BKKBN have switched tactics. The emphasis is on making family planning more accessible by bringing clinics and medical facilities to Indonesia's new, larger class of poor. The effort includes more than 35,000 field workers and hundreds of mobile clinics fanning out across the country to preach the gospel of family planning, mostly to heavily-hit urban areas. Long term contraceptives such as IUDs are heavily promoted and subsidised for their "one stop" convenience. Users of short-term contraceptives, such as birth-control pills and injections, are increasingly urged to switch to long-term ones instead.

These new efforts, however, come with a high cost. The Indonesian Government slashed its national budget this year and BKKBN has lost 35 per cent of its funds. As a result, it will be focusing more on its original family planning programmes next year, instead of supporting the poverty alleviation work it had recently entered into, such as women's empowerment programmes. "In this crisis we must know how to prioritise," admits Dr Harun Ryanto, Director of BKKBN. "We will have lots of rescheduling to do."

Most Indonesians are fully aware of the importance of family planning, Dr Ryanto believes. "Now we have to make sure they are able to use that knowledge."

Money, however, remains a key issue and efforts are being made to subsidise the cost of contraceptives. However, all welfare programmes are feeling the pinch and one Planned Parenthood clinic in South Jakarta has already reported a shortage in birth control pills and IUDs, even condoms.

Fearing aid cut backs from Japan and other countries suffering from the financial crisis, Dr Azwar of Planned Parenthood has been busy looking for funding alternatives, everything from renting out the organisation's office space to tapping other local charities. "Everybody worries about this," laments Dr Azwar. "We must look for other alternatives to funding like joining with foreign partners to gain more money or investing in other business sources."

In the meantime, Mrs Ernawati expects to have her third child in early March. She's hoping that the economic crisis will lift or that prices will come down. With luck, she says her daughter will still go to school and she can start buying milk again. She says she won't drop out of her local family planning programme, if she can make ends meet. "We will make it through the crisis," she says with a smile, "we always do." ■

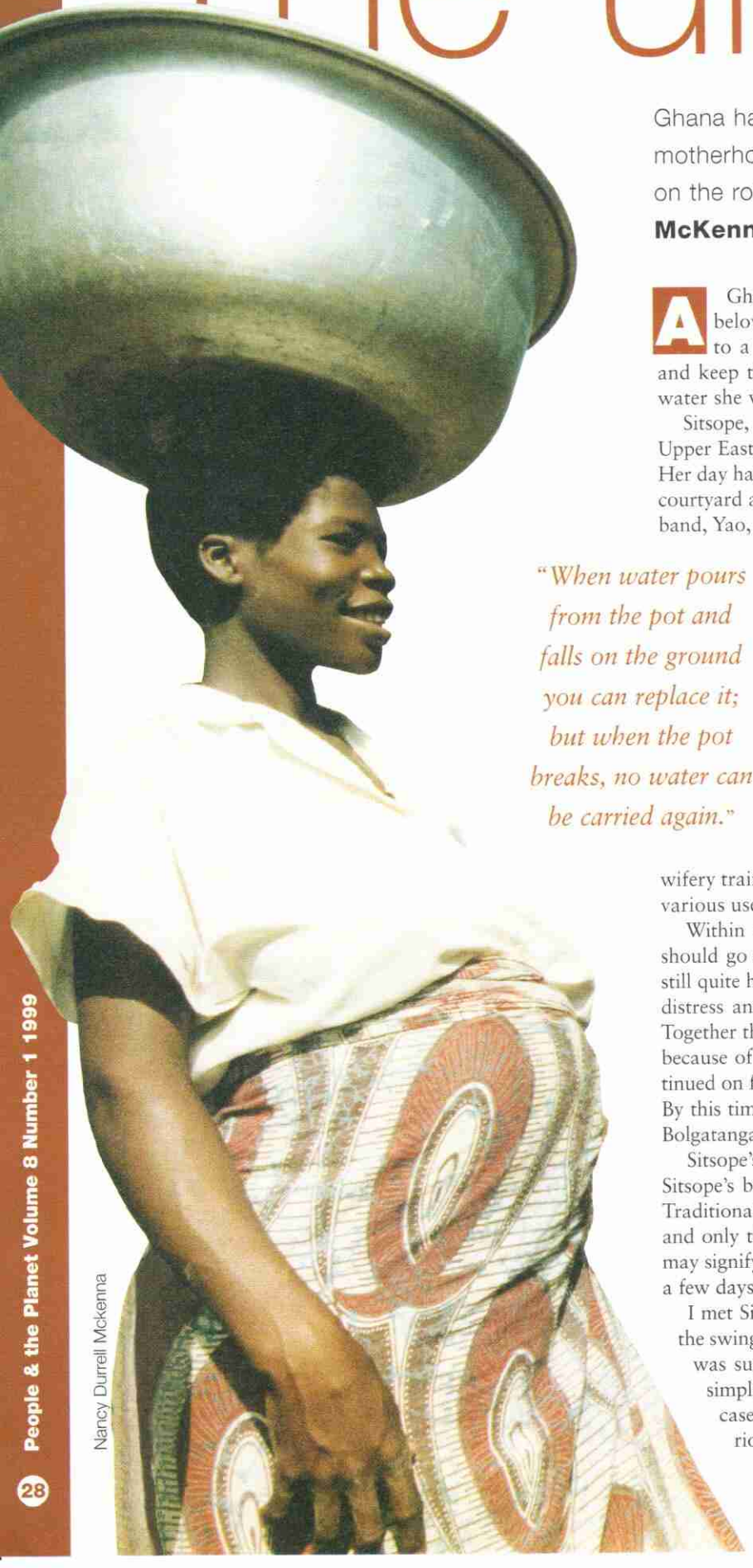
Mark Edwards/Still Pictures

Atika Shubert is a freelance journalist based in Jakarta.

Cover story: Ghana

The unbrok

Ghana has ambitious plans to promote safe motherhood and child survival, with a special emphasis on the role of traditional midwives. **Nancy Durrell McKenna** reports from one Ghanaian village.



Nancy Durrell Mckenna

A Ghanaian midwife offers the consoling words printed below to Sitsope, a young woman who had just given birth to a stillborn baby. Together they must look to the future and keep the mother strong, so that as the unbroken pot carries water she will continue to bear children.

Sitsope, 19, comes from Pontin Sekoti, a village in the remote Upper East Region of Ghana – 6km from the Burkina Faso border. Her day had began like most days: waking at 5:30 am, sweeping the courtyard and lighting the fire in preparation for cooking. Her husband, Yao, also arose early and prepared to go to work in their nearby fields, where maize and groundnuts are their main crops. Baby Lardi, aged two, lay asleep on a mat in their round mud hut with its thatched roof. During the day Sitsope fetched water from the village well, washed clothes, cooked and chatted quietly with other women under the shade of the Baobab tree.

"When water pours from the pot and falls on the ground you can replace it; but when the pot breaks, no water can be carried again."

Late afternoon the first labour pains began and by early evening she decided to walk to the nearby kraal – 2km away – to where Senano, her 76-year-old Traditional Birth Attendant (TBA) lives. Senano's midwifery skills were passed on to her by her mother, who had had a vision from God that she would be a TBA. Despite her lack of formal midwifery training, Senano has a fine understanding of herbs and their various uses during labour and has delivered many healthy babies.

Within an hour of Sitsope's arrival Senano assessed that she should go to the hospital, some 30km away; the baby's head was still quite high in the birth canal and Sitsope was experiencing some distress and weakness – there was nothing that Senano could do. Together they began on bicycle, but the track was so heavily eroded because of the first rains that they abandoned the bicycle and continued on foot, arriving at the main road one-and-a-half hours later. By this time Sitsope was very weak. A passing truck drove them to Bolgatanga Regional Hospital, a 30-minute drive along a dirt road.

Sitsope's baby was delivered stillborn by caesarian section. Sitsope's baby was not named and was not given a formal burial. Traditionally, the baby has a naming ceremony on the eighth day and only then is it accepted as a full human being. An early death may signify that it was a ghost child, coming into the world only for a few days before returning to the spirit world.

I met Sitsope, in the early hours of the morning, as they entered the swinging transparent plastic doors of Bolgatanga Hospital. She was supported by Senano. They were exhausted, barefoot and simply dressed. Senano was treated with respect, not always the case as I learned from other TBAs who are made to feel inferior and inadequate. She had done what she could for

en pot

Nancy Durrell McKenna

Sitsope and now the hospital medical staff would take over.

Sitsope's baby was one of four babies delivered stillborn that night. In Sub-Saharan Africa, where a child has a more than 1 in 10 chance of dying before the age of one year and a more than 1 in 5 chance of dying before five years, stories like Sitsope's are not uncommon.

In Bolgatanga District, mothers and children form 70 per cent of the population of 239,000. Morbidity and mortality amongst women and children account for the major proportion of all ill-health and death in Ghana. Maternal mortality at present is 214 /100,000 live births. The national objective of the Maternal and Child Health Services is to decrease maternal mortality by 75 per cent by the year 2020. Infant mortality rates are 66/1000 live births. The goal is to reduce this rate to 50/1000 live births by the year 2000. These illnesses and deaths are almost all preventable. However, until resources and services are made available in these rural areas maternal and infant mortality will continue to be high.

Progress is being made by the government with the aid of NGOs. One programme provides Yamaha motorbikes to community health nurses to travel, on otherwise impassable tracks, to remote communities. They teach health education on nutrition, personal and environmental hygiene, detection of risks (like anaemia) in early pregnancy and of utmost importance they promote family planning.

The TBAs I met, in the Volta and Upper East Region, were dedicated, wizened women who are the important liaison between their communities and the more formal health system. They are eager to receive training and understand that while they cannot prevent death once a complication has arisen, they can contribute to making motherhood safer. ■

Nancy Durrell McKenna is a Canadian-born photo-journalist with a special interest in safe motherhood. Her reporting mission to Ghana was made possible by Save the Children-Canada.

MIDWIVES TO THE RESCUE

Complications arising from unsafe abortions are the primary killer of women in Ghana between the ages of 15 and 44, according to the Minister of Health Eunice Brookman-Amissah. Approximately 1,200 die each year, spurring the Government into action, *writes Rosemary Ardayfio*.

It has begun to decentralise Ghana's reproductive healthcare services, training community-based midwives to deal with emergencies – arising from unsafe abortions and certain types of miscarriages – that previously could only be treated by doctors.

Brookman-Amissah believes that extending this training to all midwives could revolutionise healthcare in Ghana and other African countries. But she admits it was an uphill struggle to persuade the overwhelmingly-male medical profession.

The training programme is part of Ghana's Safe Motherhood Programme, involving the Health Ministry, the Ghana Registered Midwives Association and Ipas, an American non-governmental organisation.

Forty midwives from the Eastern Region (one of Ghana's 10 provinces) were initially trained in the use of Manual Vacuum Aspiration (MVA), which clears the uterus of foetal matter in case of an incomplete miscarriage or abortion, and post-abortion counselling.

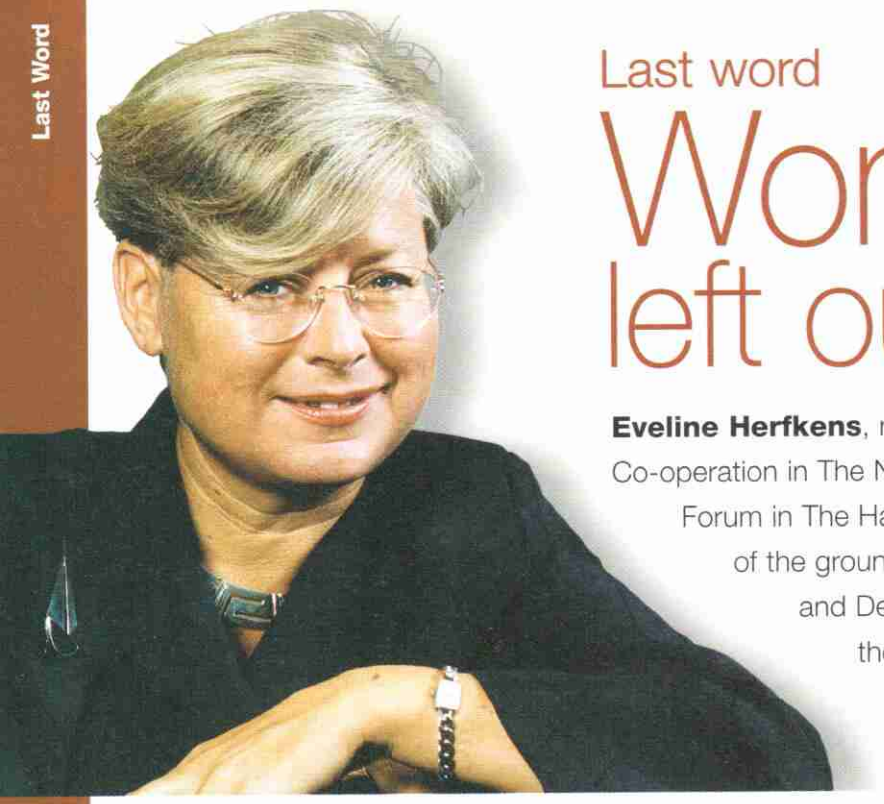
Women and their families are happy that midwives' fees for MVA – on average about 12,000 Cedis (US$5) – are far lower than the 65,000 Cedis ($25) charged by hospitals in urban areas.

However, lack of information about the law means that most Ghanaians, including many health workers, mistakenly believe that abortion under any circumstance is illegal. In fact, Ghana relaxed its abortion law in 1985.

"Given the confused state of the interpretation of the law, doctors and other health workers profit from abortion," says Professor Fred Sai of the Ghana Family Planning Association. "Fees can be very high. Clients are led to believe that they are asking for a clandestine favour in which the provider may be putting his or her livelihood and status at stake."

He says women's rights advocates in his country need to mount campaigns to help society understand the current law and what it allows. In addition, information and services for adolescents deserve the highest priority.

Source: Panos Feature Service, London.



Last word

Women: left out too long

Eveline Herfkens, recently appointed Minister for Development Co-operation in The Netherlands, will play a leading role in the Cairo+5 Forum in The Hague this February. This marks the fifth anniversary of the ground-breaking International Conference on Population and Development in 1994. A former Executive Director of the World Bank, Ms Herfkens was Dutch Ambassador to the United Nations in Geneva until August last year. Here she gives a personal view of what now needs to be done.

I had been the Dutch Minister for Development Co-operation for only a few weeks when I read the *1998 State of World Population*. Two things struck me. First, there is the good news that today women worldwide have only half as many children as their mothers.

This proves what I have always believed. If women can make their own sexual and reproductive choices, this will improve the quality of life of individual women and their children, while serving the broader goal of slowing population growth.

Secondly, this achievement proves that making your own reproductive choices is not a Western concept imposed on women in developing countries. No matter what religion or culture people are part of, given a choice, they will use it to improve the lives of their children.

The Cairo Conference in 1994 has done much to help achieve these results. The Cairo Programme of Action represents a bridge between the women's movement, family planning organisations and agencies working on population issues. The women's movement realised that being able to make your own sexual and reproductive choices, including access to contraception, is essential to improving the status of women. International organisations, NGOs and governments dedicated to curbing population growth realised that family planning policies should be broadened to include reproductive health.

When the goals of the Cairo Programme of Action have been met, women will finally be able to play a full role in the process of development. Women have been left out for too long. Once freed of the burden of too many children, women represent enormous human capital that should be used in the process of sustainable development.

In all the work I have done in parliament, at the World Bank and at the UN in Geneva, it has become very clear to me that if we fail to invest in measures to improve the lives of women, the process of sustainable development will not be successful.

At this very moment, the world faces the challenge of providing education, employment and health services for the biggest ever generation of young people. Their reproductive choices will determine the future of many countries, but the rhetoric of the Cairo Programme of Action is not enough to help them make responsible choices. For that we need effective action on a huge scale.

We urgently need to develop programmes to educate these young people – which includes educating them about their sexual and reproductive lives. They also need access to services and means to protect them against unwanted pregnancy and sexually transmitted diseases. They need information on sexual and reproductive matters. They need commitment and assistance from the international community right down to their village leaders to improve the quality of their lives.

A lot has been done since the ICPD. There are successes, but also some setbacks to be reported. If we are to improve our work and to maximise our efforts we must not lose sight of the 1.5 billion young people concerned.

At the same time both industrialised countries and developing countries are facing the problem of an ageing population. Developing countries are confronted with the combination of huge numbers of young people and growing numbers of elderly people. This means greater dependency on a small labour force and increasing demands on health care, housing and social security.

It is becoming more and more clear that real development and poverty reduction cannot be achieved without investing in social services like basic education, basic health care – including reproductive health and nutrition – and drinking water and sanitation. My government has been a strong supporter of the 20/20 initiative (under which 20 per cent of overseas aid and 20 per cent of national spending would go on basic social services) and we already meet that target.

To emphasise the importance of the Cairo Programme of Action our parliament has requested that 4 per cent of our Overseas Development budget be spent on reproductive health.

This will be an important year. It will not only mark the fifth anniversary of the ICPD but has also been designated the International Year of the Elderly. My government will play an active role to contribute to the success of both. ■

Gadfly

Consuming the future

Now that we are about to reach six billion of us, it is a good point to check again on what sort of lifestyles we pursue and what is the environmental impact of those lifestyles. It is curious that we have spent several decades being concerned about the growing numbers of humankind while not giving at least an equal amount of attention to the levels of living we aspire to, and how many natural resources we chew up thereby and how much pollution and waste we cause.

Everybody is a consumer of sorts. True, every fifth person scarcely qualifies for that designation, consuming goods worth less than $1 per day. Conversely, every seventh person qualifies for a designation of super-consumer, with a cash income at least fifty times greater. These latter are the people who, through their carbon dioxide emissions, are disrupting everybody's climate dozens of times more than the average citizen of One Earth. Fair play, anyone?

Much as the have-nots seek to match the have's, it is plain their efforts will not work out for a long time to come, at best. According to the Worldwatch Institute, if every Chinese person were to consume just one additional chicken per year and if the said chicken were to be raised primarily on grain, this would account for as much grain per year as all the grain exports of the number two exporter, Canada. If the Chinese were to raise their per-capita consumption of beef, now only 4 kgs per year, to that of Americans, 45 kg, and if the additional beef were produced largely in feedlots after the manner of the United States, it would account for as much extra grain as the entire US grain harvest, less than one-third of which is exported. Because of its recent climbing up the food chain toward a meat-based diet, China has become one of the world's leading importers of grain. The global grain market today is around 200 million tons per year, and shows scant scope for significant increase.

As a further measure of its ambitions, the Chinese government has designated the auto industry as one of five industry "pillars". Today China has fewer cars than Los Angeles. If per-capita car ownership, together with oil consumption, were to match that of the United States, China would need 80 million barrels of oil per day – by contrast with the world's 1996 oil output of 64 million barrels of oil per day. The surge in carbon dioxide emissions would be unprecedented.

All this notwithstanding, there are already some 250 million newly affluent people in China. They are people with a household income equivalent to perhaps US$20,000, and enough discretionary income to enjoy the perquisites of the good life as perceived by these *nouveaux riches*. Top of the shopping lists are meat and more meat, followed by cars whether big or small. These are the badges of success: they show you have Arrived.

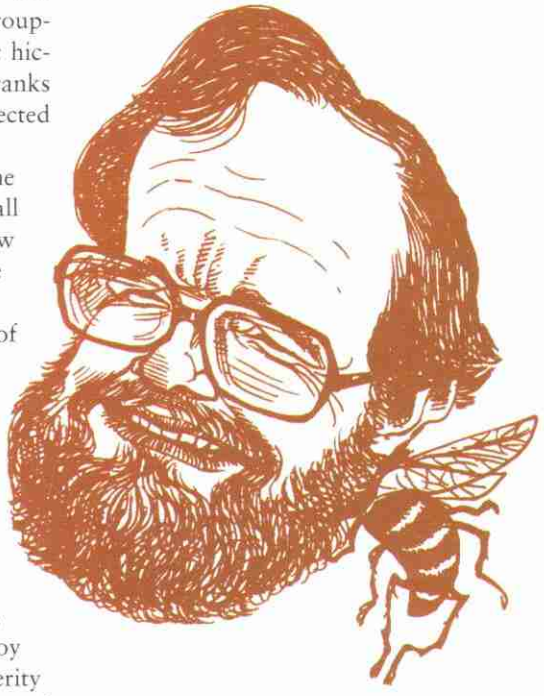
The new consumers in China are matched by at least 200 million in India, and tens of millions in South Korea, Taiwan, Malaysia and Thailand (the recent economic setbacks have not permanently punctured the economic bubbles). Then there are 200 million more in Brazil, Argentina, Venezuela and Mexico, and more again in Hungary and other countries of Eastern Europe, also Turkey. Put them all together and they total about as many as the 800 million long established consumers in the ultra rich countries (the OECD grouping). When the current economic hiccups in Asia are left behind, the ranks of the new consumers can be expected to rise rapidly.

But they cannot hope to become super consumers. Where would all the extra grain come from? How could the global climate tolerate the huge additional pulse of carbon dioxide? There are all kinds of other environmental reasons to suppose that environmental constraints will become all the more constraining. True, technology could help to moderate the environmental impact. According to a recent landmark book, *Factor Four* by von Weizsacker, Lovins and Lovins, reviewed in Vol 6/4, we could enjoy twice as much material prosperity while using only half as much natural resources and causing half as much pollution and waste. But the new consumers will want to pursue the American dream to the hilt, and it is hard to see that the best technologies could enable huge numbers of affluent aspirants, perhaps two billion people by 2010, enjoying even half the material prosperity of Americans with average household incomes of $40,000.

But is it true "prosperity" – mental and emotional as well as material? Or is the American dream becoming a nightmare with its harried lifestyles and declining leisure time, where the shopping mall is the ultimate mecca, and the good life is a case of piling up goodies?

In any case, we cannot expect the new consumers to forego their "rightful share" of affluence unless the long-time affluent agree to cut back on their environmentally ruinous lifestyles. It is these communities that must offer a strong example, and soonest. Where is the political leader who will espouse the new vision, however much it may be perceived as the ultimate vote loser? ■

Dr Norman Myers is a Fellow of Green College, Oxford, and a Contributing Editor of *People & the Planet*.



Associates' news

$20 MILLION LOSS

UNFPA/Mikuma

The UN Population Fund has reacted sharply to the decision by the US Congress to eliminate $20 million of funding for the agency in 1999. The head of the Fund, Dr Nafis Sadik, said the cut would result in more, not fewer abortions in the developing world. UNFPA officials said the main reason for the cut was the agency's programme in China, a country with regulations governing family size in an effort to slow population growth.

In fact, as Don Hinrichsen describes on page 20, the UNFPA-supported programme gives Chinese women access to high quality voluntary family planning in parts of the country where the quota system no longer applies. The programme was approved by the 36-nation executive board of UNFPA, including the United States.

Dr Sadik said "The United States decision is misguided from the point of view of all those, including UNFPA, who seek to minimise abortion. At the very time when individual demand for family planning is rising all over the world, it will weaken family planning programmes and increase the use of abortion to avoid unwanted births."

"The US decision will mean the unnecessary death and suffering of women who are deprived of the information and means to plan their families. It will deny many people in developing countries the right that Americans take for granted – the right to individual freedom in regard to the size and spacing of the family. It will weaken not only population programmes but programmes aimed at better health, equal access to health and education for women, and economic security.

"The US decision will hit especially hard the least-developed countries in Africa and elsewhere whose population programmes are most dependent on external assistance. It will contribute to the spread of sexually transmitted diseases, including HIV/AIDS, which pose an ever-larger threat to health, life and prospects for development. It is a step backwards from United States' leadership in the population field and United States' support for internationally-agreed approaches to population problems."

The agency said the cut would deprive 870,000 women of modern contraceptives, thereby threatening 1,200 maternal and 22,500 infant deaths, 15,000 serious illnesses during pregnancies and causing 200,000 abortions.

POPULATION TRENDS

Current trends in reproductive behaviour differ sharply between regions and should not be confused, says Population Council Vice President John Bongaarts. "In the already crowded developing world, despite plummeting fertility rates, both the number of births and population size will keep growing. The expected addition of several billion more people will hamper ongoing efforts to reduce poverty and achieve sustainable development.

"On the other hand, in parts of the developed world, particularly Europe and Japan, already low fertility is causing consternation over the potential adverse effects of an ageing or declining population. This concern should not be overblown, however, since reported fertility measures do not reflect the fact that couples are still having about two children – they're just having them at an older age. Fertility rates are not as low as they appear to be."

Writing in *Science*, Bongaarts says the policy implications for both conditions call for different approaches. Indifference is not one of them. Concern over adverse consequences of additional billions of people in the poorer countries has "provided the principal rationale for past investments in voluntary family planning and reproductive health programs that help couples avoid unwanted childbearing. This effort should be strengthened and expanded to include social investments in young people – for example, girls' education – that help offset population momentum and improve the quality of individual lives."

In the developed world, the potential adverse consequences of prolonged below-replacement fertility have led to "extensive discussions but little action," with most governments reluctant to pursue explicit pronatalist policies. Numerous policy options have been proposed to encourage childbearing, Bongaarts says, but, unfortunately, there is "little useful experience to draw on in assessing potential effectiveness. In rare instances where new measures to raise fertility were successfully implemented (for example, Sweden in the late 1980s) it is difficult to disentangle the roles of the specific components in a package of measures." Options include free or subsidised childcare, reduced taxes for families with children, paid parental leaves; and subsidised housing for young couples.

Contact: Christina Horzepa, Public Information Specialist, Population Council, One Dag Hammarskjold Plaza, New York, NY 10017, USA. Tel: (+ 1 212) 339 0520, Fax: (+1 212) 755 6052, Email: pubinfo@popcouncil.org

SLOGAN SUCCESS

If you love them, plan for them, is the slogan key to the Philippines' family planning communication outreach programmes and is central to the success of increased contraceptive use in the Philippines in the 1990s. The slogan suggests that the aim of family planning is not so much to avoid having children, as to provide the opportunity to love each child better by planning for each appropriately.

Conducted by the Philippines' Department of Health between 1993-1996, with technical assistance from the Johns Hopkins University Population Communication Services, these communications programmes helped increase modern contraceptive use by five percentage points, from 25-30 per cent. Furthermore, the average annual rate of increase was only 0.84 per cent between 1968-1993, but during the three-year period the campaigns were conducted, the average rate of increase doubled to 1.67 per cent per year.

The two campaigns were undertaken in 1993-1995 and 1995-1996. The 1993-1994 campaign used a successful three-phase approach. Phase I used a series of radio and television spots representing the "voice of the people" on why they support family planning. Phase 2 urged couples to visit trained health providers and Phase 3 used testimonials by actual users of different contraceptive methods. The 1995-1996 took the same approach but also included male motivation messages.

Results from a panel survey show that exposure to campaigns can change conventional attitudes towards contraceptive use, and increase take up. Appreciation and acceptance of the

idea, *If you love them, plan for them* has not only made for well-planned families but also well-loved children.

Contact: Jose G. Rimon, Project Director, Population Communication Services (PCS), Center for Communication Programs, JHU/CCP, 111 Market Place, Suite 310, Baltimore, Maryland 21202-4012, USA. Tel: (+1 410) 659 6300, Fax: (+1 410 659 6266 Email: webadmin@jhuccp.org

FOREST FORECAST

The Intergovernmental Panel on Climate Change, made up of more than 2,500 of the world's leading scientists, has concluded that "forests are highly sensitive to climate change" and that up to one third of currently forested areas could be affected in some way.

Conservation of forest habitats in a rapidly warming world is likely to be hardest in the places where these ecosystems are fragmented, polluted or under development pressure, says Nigel Dudley and Adam Markham for the World Wide Fund for Nature (WWF) Climate Change Campaign.

Global warming will alter the ability of trees to survive, and may force species to disperse and shift their ranges far faster than they are able to, thereby disrupting existing ecosystems. As climatic zones change, habitats may move geographically, move to different altitudes, break up or be lost entirely.

Warmer temperatures increase the rate at which trees use water, and if not balanced by increased precipitation, warming can directly threaten forest survival, particularly where tree species are already living at the edge of their ecological tolerances. Hopefully, as some scientists suggest, the increased carbon dioxide in the atmosphere may partially offset this effect by increasing the efficiency with which trees use water.

Warmer conditions may also increase the threat from pests and diseases. For example, scientists in Alaska have concluded that 20 million hectares of forest there is suffering from an unprecedented attack by spruce budworms as a result of the extraordinary string of warm years.

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IT TAKES TWO

Family planning ideally takes two is the central theme of a recent issue of Network, published quarterly by Family Health International (FHI).

"Traditionally, family planning was decided by both members of the couple. With the advent of modern contraceptive methods, one partner became responsible, the other was left out," says Dr Jane Mutambirwa, an anthropologist at the University of Zimbabwe who worked on studies completed by FHI.

Findings from FHI's Women's Studies Project (WSP) show a common link worldwide in the need to expand services for men since men play a major role in decision-making, and to encourage greater use of male contraceptive methods. WSP asserts that health programmes should encourage women and men talk to each other about family planning and that education campaigns are needed to inform men about the roles they can play. Also, men should learn more about the side effects of both male and female contraceptive methods since decision about contraceptive use is often based upon this criterion. Studies in many countries show how family members can be educated about family planning. For instance, in Honduras, Care International trained agricultural extension agents to provide reproductive health education meetings with farmers and helped design a family planning booklet for rural couples. Volunteers worked with couples to encourage them to discuss family size and timing of pregnancies. Men were enthusiastic about receiving information on reproductive health, researchers say, and communication with their wives increased.

Contact: Publications Co-ordinator, FHI, PO Box 13950, Research Triangle Park, NC 27709, USA. Tel:(+1 919) 544 7040, Fax:(+1 919) 544 7261

GENDER GAP

A new study by Population Action International (PAI), *Educating Girls: Gender Gaps and Gains*, illustrates the power of education in reducing teenage pregnancy.

In Togo, for example, only 1 in 100 girls with a secondary education give birth each year, compared with 1 in 6 girls with no schooling. In most developed countries, where nearly all girls attend school, teenage birth rates are generally very low. One notable exception is the United States, where 1 in 16 teenage girls give birth each year – the same as in India, Indonesia and Pakistan.

"Education makes a crucial difference in a girl's life," says Shanti Conly, Director of Policy Research at PAI and co-author of the study. "After six or seven years of school, she is much less likely to become a teenage mother or live in poverty. Look at the United States, where girls with a high school diploma earn 60 per cent more than those who do not complete high school."

The PAI study assesses the extent to which girls enjoy equal educational opportunity relative to boys, ranking 132 countries by a 'Gender Gap Score' reflecting the difference between school enrolment rates for girls and boys in 1995.

The study looks most closely at 51 countries where enrolment rates for girls continue to lag behind those for boys. In these countries – primarily in South Asia, the Arab world and sub-Saharan Africa – roughly 600 million boys and girls attend school, with 42 million fewer girls than boys enrolled at the primary level and 33 million fewer at the secondary level.

For a copy of the report contact: PAI, 1120 19th Street NW, Suite 550, Washington DC 20036, USA. Tel: (+1 202) 659 1833, Fax: (+1 202) 293 7195.

BIODIVERSITY BOOST

Intel Corporation's co-founder and Chairman Emeritus Gordon Moore and wife Betty are contributing $35 million to Conservation International (CI) to identify emerging threats to biodiversity and act swiftly to protect the planet's most biologically valuable ecosystems.

The funds will enable CI to set up a Center for Applied Biodiversity Science, which will gather world leadersn in science, technology, economics, conservation and other disciplines to develop action plans to counter imminent global threats. It will work closely with partnership organisations worldwide to tackle in the field some of the most pressing threats to biologically rich natural habitats.

The Center's efforts will parallel Conservation International's strategic focus of targeting the world's highest priority regions in terms of biological diversity – including the world's biodiversity hotspots, tropical wilderness areas and key marine ecosystems (see *People & the Planet* Vol 7/4).

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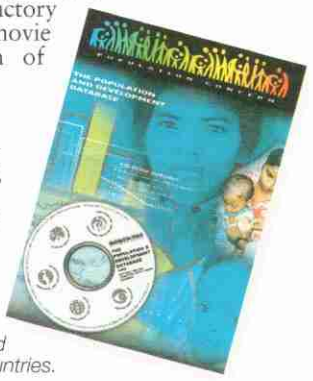
DATA ON DISK

Thirty articles from *People & the Planet* are included in a new Population and Development CD Rom published by Population Concern. These have been selected from the first seven volumes of the magazine, to illustrate the range of connections between people and the environment.

This CD Rom is essentially a demographic data base, including information about 198 countries, supplemented by articles and reports from the 1994 International Conference on Population and Development, in Cairo, the 1995 World Conference on Women in Beijing and other sources.

Included are photographs, cartoons, posters, newspaper cuttings, and teacher and student worksheets. For those with the right equipment there is also an introductory video and a short movie showing the growth of world population.



The CD Rom may be obtained at £25 from Population Concern, 178-202 Great Portland Street, London W1N 5TB, UK. Tel: +44 (0)171-631 1546, Fax: +44 (0)171-436 2143, Email: population.concern@ukonline.co.uk. *Special consideration will be given to requests from schools and colleges in developing countries.*

NEW VIDEOS

UNFPA has just released a six-minute video highlighting one highly successful project in the Philippines. Entitled Harvesting the Sea in the Philippines, it is intended as the pilot in a series of short videos depicting UNFPA field projects, within the context of the Fund's far-flung country programmes.

These short documentaries are intended for the donor community, as information on what UNFPA is doing in various countries and as advocacy tools for country programme directors.

Contact: Alvaro Serrano, UNFPA, 220 East 42nd Street, New York, NY 10017, USA. Email: serrano@unfpa.org

Associates' News is compiled by **Maya Pastakia** to whom all contributions should be addressed.

Films

THE AGEING GAME

Hedi is 81. Every morning he's shaved in the barber's shop of the old people's home in Tunisia where he lives. He's visited daily by the home's Director, and sometimes even by Tunisia's President Ben Ali, who has made it obligatory for working people to give their parents a pension, and even instituted an annual Old People's Day to honour the elderly publicly.

Hedi has no complaints. He is – he boasts in *Relative Values*, one of four films in TVE's new series made to illustrate this year's *State of World Population Report* – treated like a prince.

But Hedi is the exception in Tunisia today – and the old people's home where he lives is the only one in the capital city, Tunis. There are 800,000 old people in the whole country, but only one in a 1,000 lives in a home.

In Tunisia, the family is still the bedrock of society, and the vast majority of the country's old people are unquestioningly looked after by their children or relatives who treasure and respect them as a source of wisdom and experience. The state only steps in to take over responsibility for the rare individuals who have no family to look after them.

But Tunisia is a tiny country, with a population of just nine million – and pressures on the economy, together with the growing influence today of migration, tourism and foreign media, threaten to destabilise this family-centred culture as they force more and more Tunisians to migrate to find work abroad. Interviewing some of these migrants in the streets of Paris where many have congregated to create a new, 'little Tunis', director Charlotte Metcalf questions how long Tunisia's extended family structure can withstand outside forces?

It's a dilemma more and more countries are having to face up to. The 1998 *State of World Population Report*, published by the United Nations Population Fund, shows there are now over 560 million people aged 60 and over in the world, and in parts of Europe, North America and Japan, the proportion of older people in the population is rising faster than any other group.

These soaring numbers of the old and very old are part of a new demographic phenomenon – what the report calls the 'new generations' – and they are paralleled by the coming of age of the largest generation of young people between 15 and 24 ever, as a result of high fertility rates in the past.

The four short films in TVE's *The Ageing Game* look at the impact of these 'new generations' of old and young people on families and social services in four different countries and cultures – in Japan, Nigeria and India, as well as through Hedi's story in Tunisia. They also explore what UNFPA calls the 'implicit contract' that has always before existed between the generations – the universally understood code whereby older generations raise, nurture and educate the next generation to become responsible citizens and parents and, in their turn, provide and care for them in their old age.

The series is introduced by a short, 7½-minute film that sets out some of the problems and challenges these new populations of 'young' and 'old' people present for governments, policy-makers and the international community.

Each film in the series explores a different aspect of the new demographic phenomenon. *Relative Values* looks at the extended family structure still intact in Tunisia – where the fast track to paradise is said to come through the love and devotion you show your mother – but for how much longer?

A Silver Generation focuses on Japan, which has the highest number of old people in any industrialised country, and where the problems of caring for increasing numbers of old people are compounded by a drastically falling birth rate and the growing demand of young women to choose if and when they want to get married.

Alhaji's Wives is filmed in northern Nigeria where the practice of polygamy, endorsed by local religious leaders, is accompanied by a widespread denial of women's reproductive rights leading to high rates of child and maternal mortality, unsustainably large families – and lives of ignorance, misery and resentment for many of the women married off to older men in their teens.

The final film in the series, *Dance Within* by Indian Director Manjira Datta, explores the increasing effect of globalisation on the economy in India, contributing to the breakdown of the extended family system that once automatically provided for parents and relatives in their old age. India, the UNFPA report claims, will have 75 million old people – more than any other country in the world – by the year 2001.

Jenny Richards

All four films in *The Ageing Game* are available to TV stations, as well as on VHS cassette for non-broadcast, educational use for US$30 (£20). Contact: Lyndsey Cockwell, TVE, Distribution Office, Prince Albert Road, London NW1 4RZ, UK.
Tel: +44 (0)171 586 5526; Fax: +44 (0)171 586 4866. Email TVE-DIST@tve.org.uk

Books

STOPPING AT ONE

MAYBE ONE: A PERSONAL AND ENVIRONMENTAL ARGUMENT FOR SINGLE-CHILD FAMILIES
Bill McKibben
Simon and Schuster, New York, 1998, $23

"Population is a subject I've been trying to avoid for years, and not just because I know it will cause turmoil and angry controversy. It scared me more because it forced me and my wife to confront head-on the issue of how many children we were going to have... and in our case the conversation ended with me in a vasectomy clinic."

For an environmental writer to admit such a fear of his subject on the first page shows refreshing candour. When has the last activist, theorist, or even "leader in the field" examined their own lives so intimately before reaching policy prescriptions that affect, typically, everyone but themselves.

But the first person singular is a familiar voice for Bill McKibben. His 1989 alarm over global warming, *The End of Nature*, impassioned conservationists much like Rachel Carson had 40 years earlier. A later book surveying exemplary case studies in development, from health care in Kerala to mass transit in Curitiba, proved he could teach as well as preach. Thus the blend of intellect and feeling in this book about his own family planning comes as no surprise.

His argument is simple. The next 50 years will determine where America's population will peak and, because of its outsize consumption level and cultural models for the rest of the world, "will decide how healthy the planet will be for centuries to come. This is a point in time poised uniquely between hope and fear – it's possible we'll face unavoidable calamity, but also possible we'll see remarkable change for the better."

By modestly bringing down the family size and immigration rates that number will be 230 rather than 400 million, a population America has lived with before (in 1984), rather than more than 100 million higher than it is today. An average of 1.5 children per family, argues McKibben, would provide more time, "a bit more margin", to get our own house in order – to control greenhouse gases, wanton consumerism, profligately sized homes, and all the other sins of affluence he rails against and leads a life studious in their avoidance.

But what do the facts – that the TV show Baywatch is seen by some 1 billion people worldwide, that McDonald's hamburgers are considered brainfood by many Chinese one-child parents, and that gasoline prices in the US are hovering around $1 per gallon – have to do with McKibben's vasectomy?

He offers no fixed answer other than as one of his essay's personal truths, a problem consisting he says of one part moral and one part math. "There's no set of statistics to explain why it felt odd, why it felt a little shameful, why it felt sad," he writes. "But at the end of the

20th Century the signs of the time point me in the direction of the kinds of caring that come with small, not large, families."

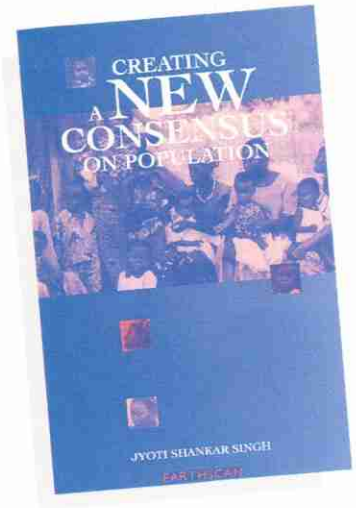
Lou Werner

Lou Werner is a New York-based documentary film-maker and health education media consultant.

BEHIND THE SCENES

CREATING A NEW CONSENSUS ON POPULATION: THE INTERNATIONAL CONFERENCE ON POPULATION AND DEVELOPMENT
Jyoti Shankar Singh
Earthscan, London, 1998, £14.95

As former Director of the UN Population Fund's Technical and Evaluation Division (recently renamed Technical and Policy Division), Jyoti Singh was one of the key "movers and shakers" working tirelessly behind the scenes at the Cairo Conference to create a new global consensus on population and development. It is fitting that this book comes out on the eve of the five-year review of the implementation of the Cairo agenda, agreed to by all 179 governments present at this momentous conference, held in September 1994 in Cairo, Egypt.



As one of the insiders in the long and laborious process of getting a new, broader reproductive health agenda through the meat grinder of a numbing political process, Singh's book is a masterful behind-the-scenes account of one of the most successful UN conferences ever held. As current history, it is an accurate and highly readable account of the entire process that led, eventually, to the ICPD Programme of Action. It is also takes the reader on a fascinating journey through the corridors of power, offering insights into not only what happened and why, but *how*.

The how of this account is really what makes the book a must read for anyone interested in the international political process and the workings of the UN system. Few books ever written on the outcome of a UN conference are worth the paper they're printed on. This book is an important exception. As such, it is an invaluable contribution to political science as well as providing a kind of road map to the vital population and development issues that are currently shaping the debate over individual choice versus chance and the controversy surrounding the emergence of a powerful global movement promoting women's and men's reproductive rights.

The abortion debate in the United States is just the tip of the backlash. Make no mistake, we are in a war with the forces of coercion and oppression that would turn women back into mute baby factories and overturn 30 years of progress. This book lays out in no uncertain terms the issues that are at stake and why everyone should care about the outcome of the reproductive revolution, a revolution that the author helped to bring about.

Don Hinrichsen

POLITICS OF FERTILITY

DO POPULATION POLICIES MATTER? FERTILITY AND POLITICS IN EGYPT, INDIA, KENYA, AND MEXICO
Anrudh Jain (Editor) and others
Population Council, New York, 1998, US$14.95

The politics of population policies in four developing countries – and what makes them succeed or flounder – is explored in this new Population Council book.

The authors show that effective population policies require political commitment and courage, widespread support, adequate funding, good design and management – and a sound concept. As editor Anrudh Jain puts it: "Population policy-making, dealing as it does with altering the most basic human behaviours related to sexuality and reproduction, requires a delicate balancing of national, group, and individual interests."

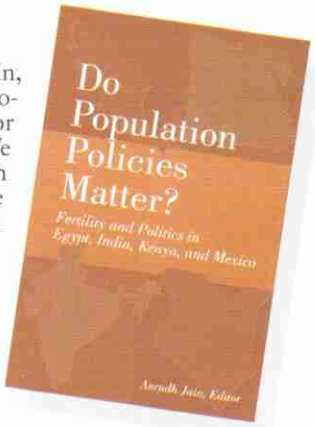
Jain argues that population policies in developing countries before the International Conference on Population and Development (ICPD) were often equated with family planning programmes, to the detriment of both.

The ICPD Action Plan helpfully comprised two elements: to provide contraceptive methods within broader reproductive health services, and to advance women's equality in education, health, and economic opportunities, thus creating conditions favourable for smaller families.

Jain suggests a four-point strategy for those who remain committed to reducing population growth and fertility. First, recognition that while family planning programmes will reduce unwanted childbearing, a fertility-reduction policy requires involvement of other sectors.

Second, the delivery of reproductive health services should not be the sole responsibility of family planning programmes: a complete package should involve both family planning and health departments, with family planning focused on the reduction of unwanted childbearing in a healthful manner.

Third, both fertility-reduction policies and population policies would need to have as their sole objectives improvements in individual well-being.



Fourth, says Jain, "We need to advocate publicly for these changes. We need to give as much attention to the qualitative issues of people's lives as to the quantitative issues of population size and the growth rate. We need to think of population issues as one aspect of a social reform movement for improving individual well-being, and we need to establish stronger ties with other social reform movements, including but not limited to the feminist movement."

Sandra Waldman

Sandra Waldman is Director of Public Affairs at the Population Council.

POPULATION PRIMER

BEYOND MALTHUS: SIXTEEN DIMENSIONS OF THE POPULATION PROBLEM
Lester Brown, Gary Gardner, Brian Halweil
Worldwatch Institute, Washington, 1998.

This is a sobering analysis of the population problem, written with all the hard facts and clarity which we have come to expect from Worldwatch. As such, it is an excellent primer for all those who dismiss population as a central factor in the struggle for a sustainable future – or think the problem is well on the way to being solved.

The final chapter, in particular, would make useful bedtime reading for those members of the US Congress who recently voted to defund the UN Population Fund.

The central thesis of this chapter is that while 32 industrial countries are stabilising their population size, and 39 other countries (including China and the United States) are well on the way to joining them in the final stage of the demographic transition with low birth and death rates, over 100 countries remain in the transitional stage.

And as numbers press on resources, and diseases such as AIDS take hold, many of these are in danger of slipping back to stage one where tragically high death rates are accompanied by repeated childbearing.

The solutions offered, including optimum population goal setting and a new global commitment to the two-child norm, alongside the well-worn remedies of family planning and female emancipation, fall short of the broader vision for reform that is put forward by some others.

But, that said, this small book does a wonderful job in putting population back into the development equation, where it clearly belongs.

John Rowley

Worldwatch Paper 143 may be obtained from the Worldwatch Institute, 1776 Massachusetts Avenue NW, Washington DC 20036-1904, USA. Tel: (+1 202) 452 1999, Fax: (+1 202) 296 7395, Email: wwpub@worldwatch.org

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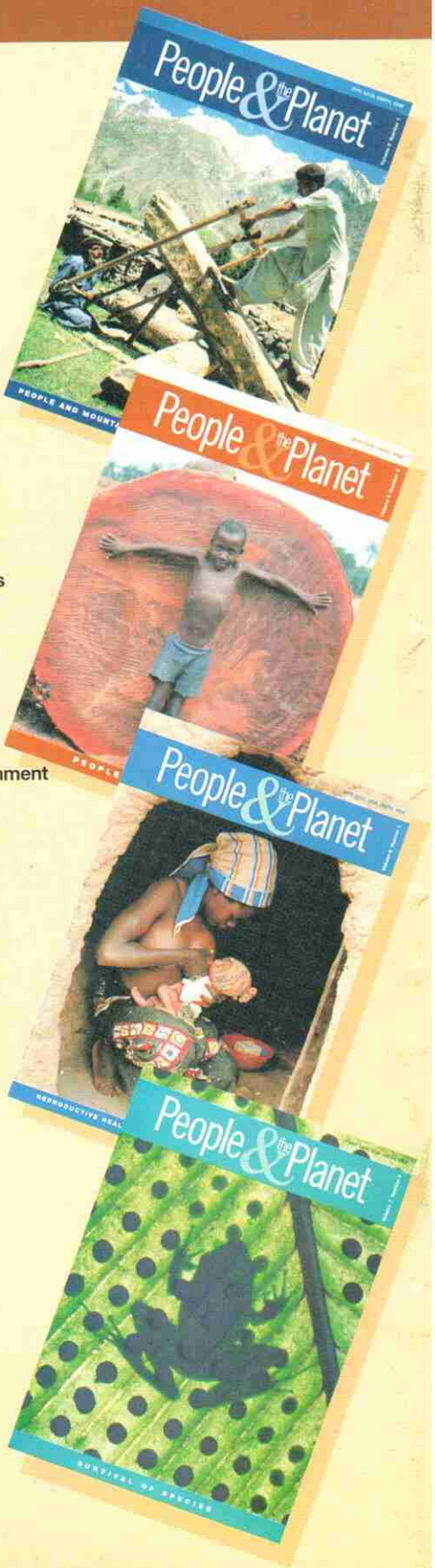

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